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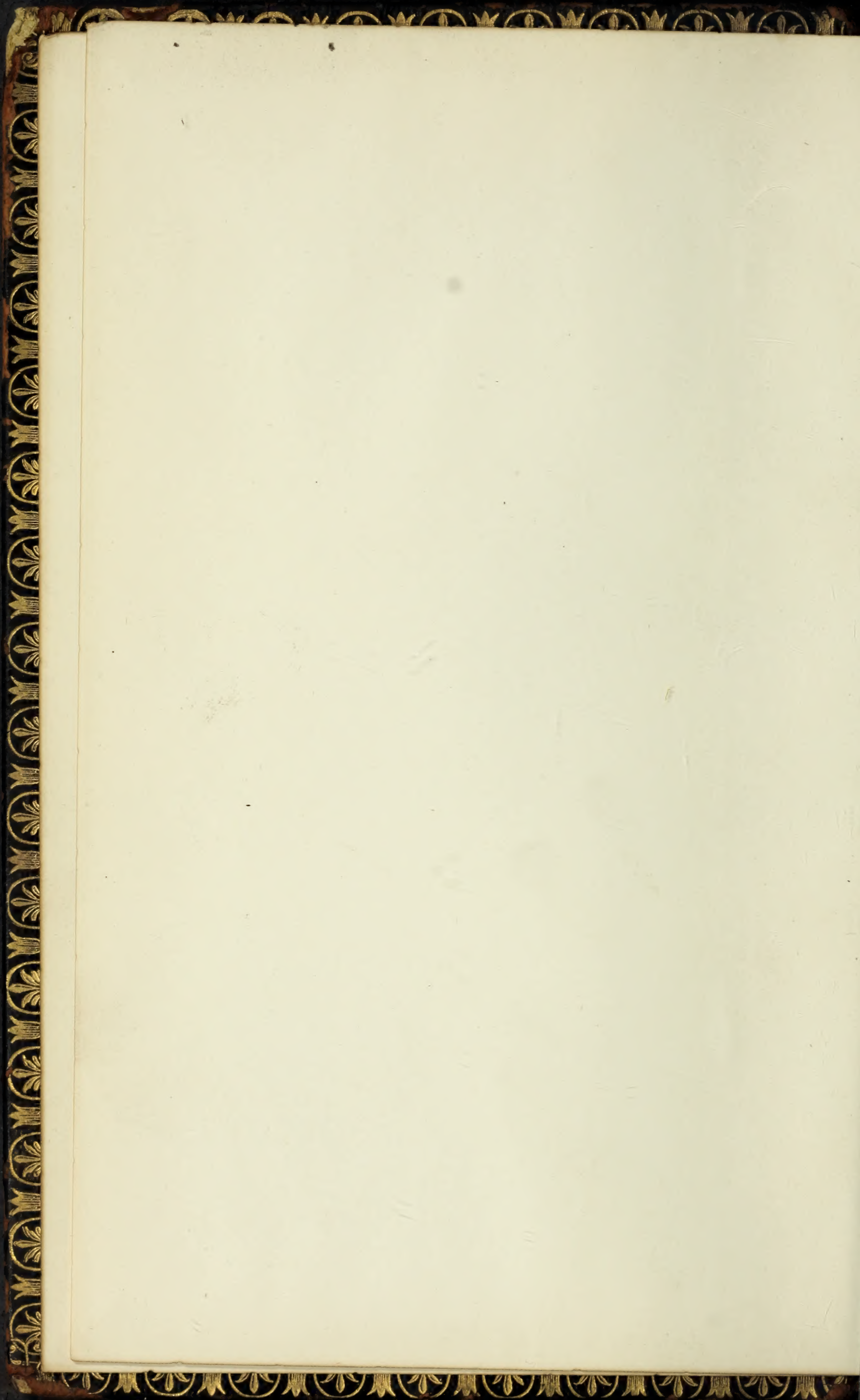
ECONOMICS
DEPARTMENT

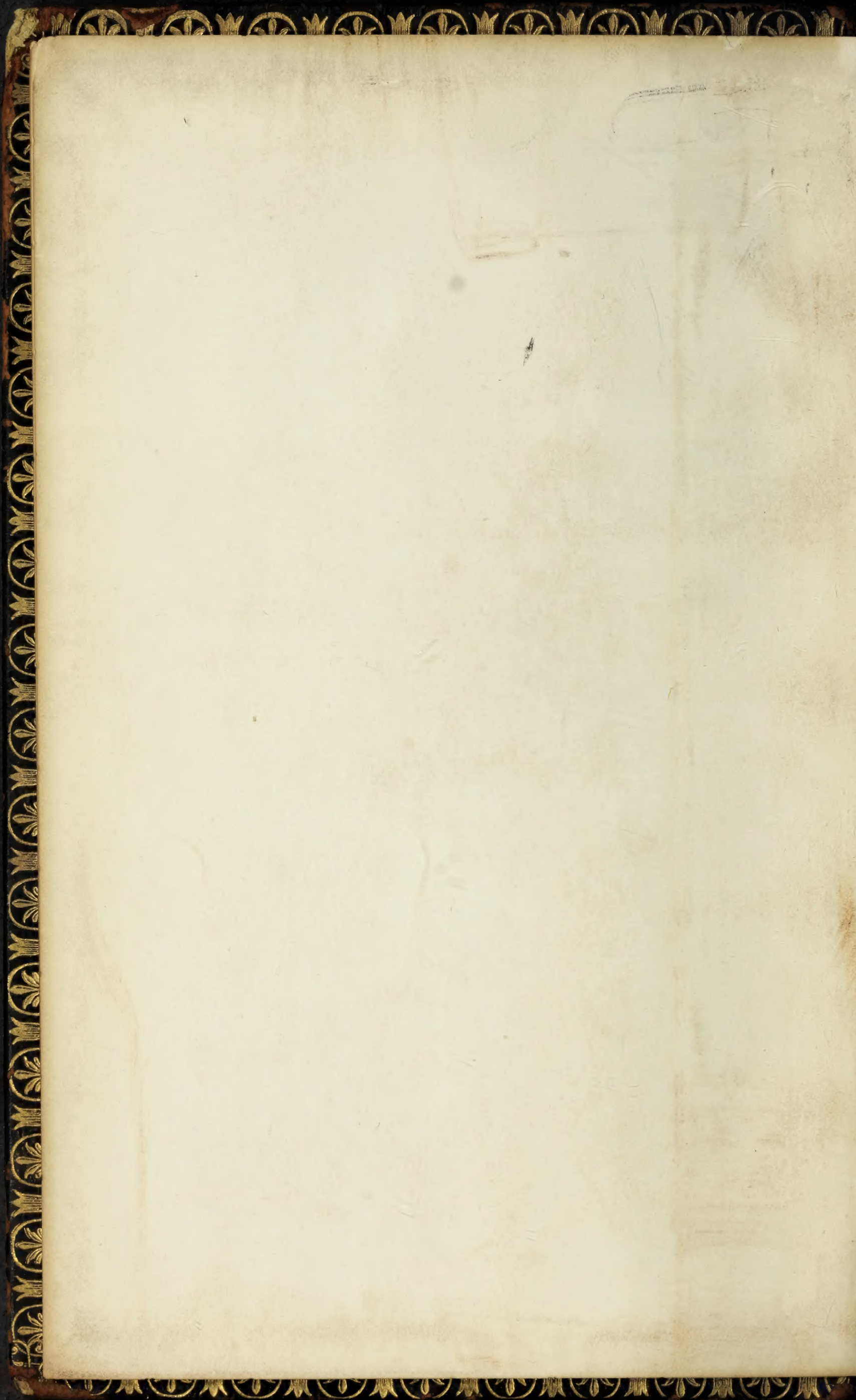
*On the occasion of his
Presiding at the Annual Festival on
Saturday, January 21st, 1893.*

W. H. ELLIOTT,
Secretary and General Manager.



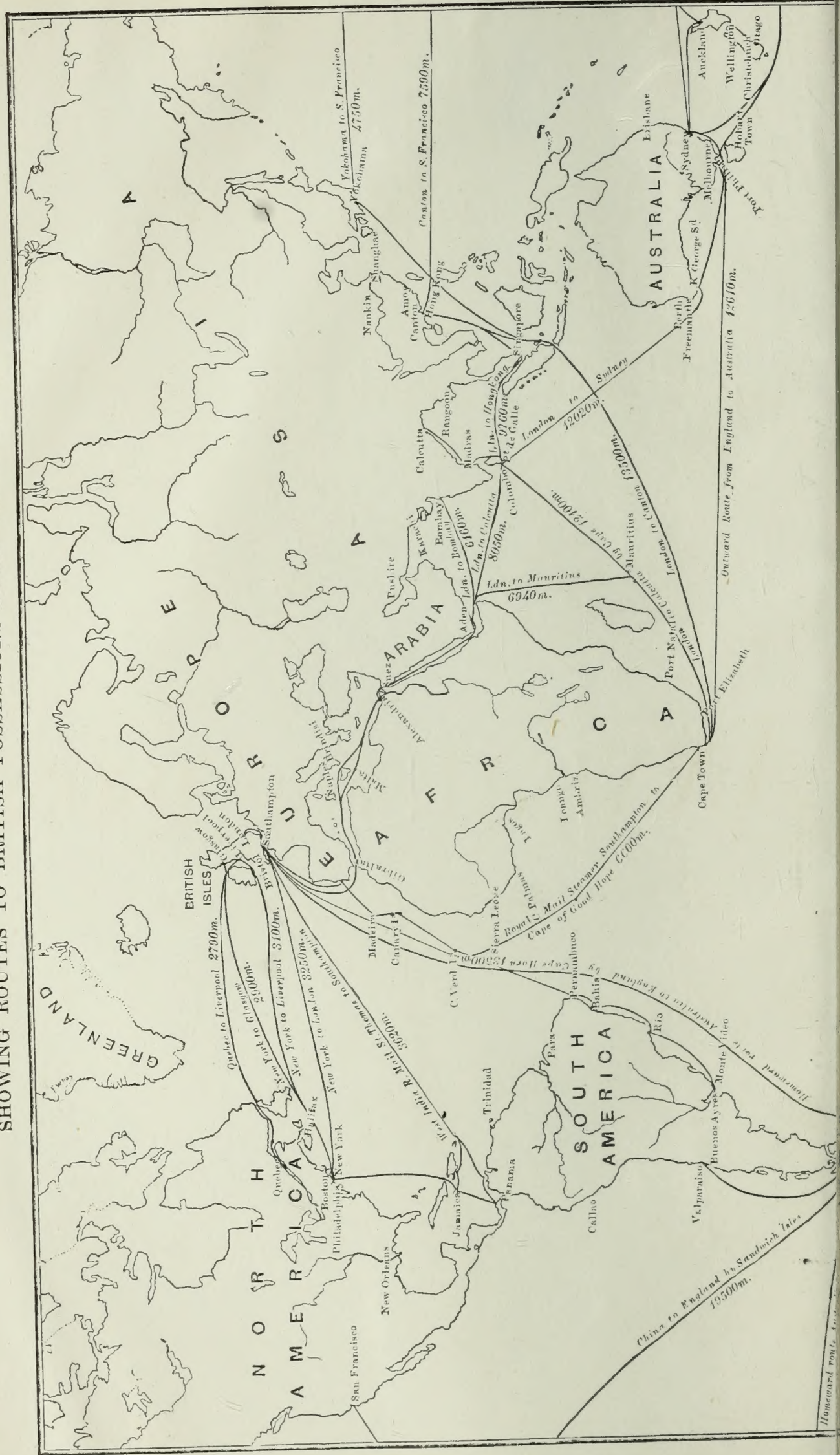
52





Map of the World.

SHOWING ROUTES TO BRITISH POSSESSIONS FROM GREAT BRITAIN.



THE CO-OPERATIVE
WHOLESALE SOCIETIES LIMITED.

ENGLAND AND SCOTLAND.

ANNUAL FOR 1893.



PUBLISHED BY
THE CO-OPERATIVE WHOLESALE SOCIETY LIMITED,
1, BALLOON STREET, MANCHESTER;
AND
THE SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED,
119, PAISLEY ROAD, GLASGOW.

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1893

MANCHESTER:

PRINTED AND BOUND BY
THE CO-OPERATIVE PRINTING SOCIETY,
AT THEIR WORKS,
NEW MOUNT STREET, ANGEL STREET.

PREFACE.

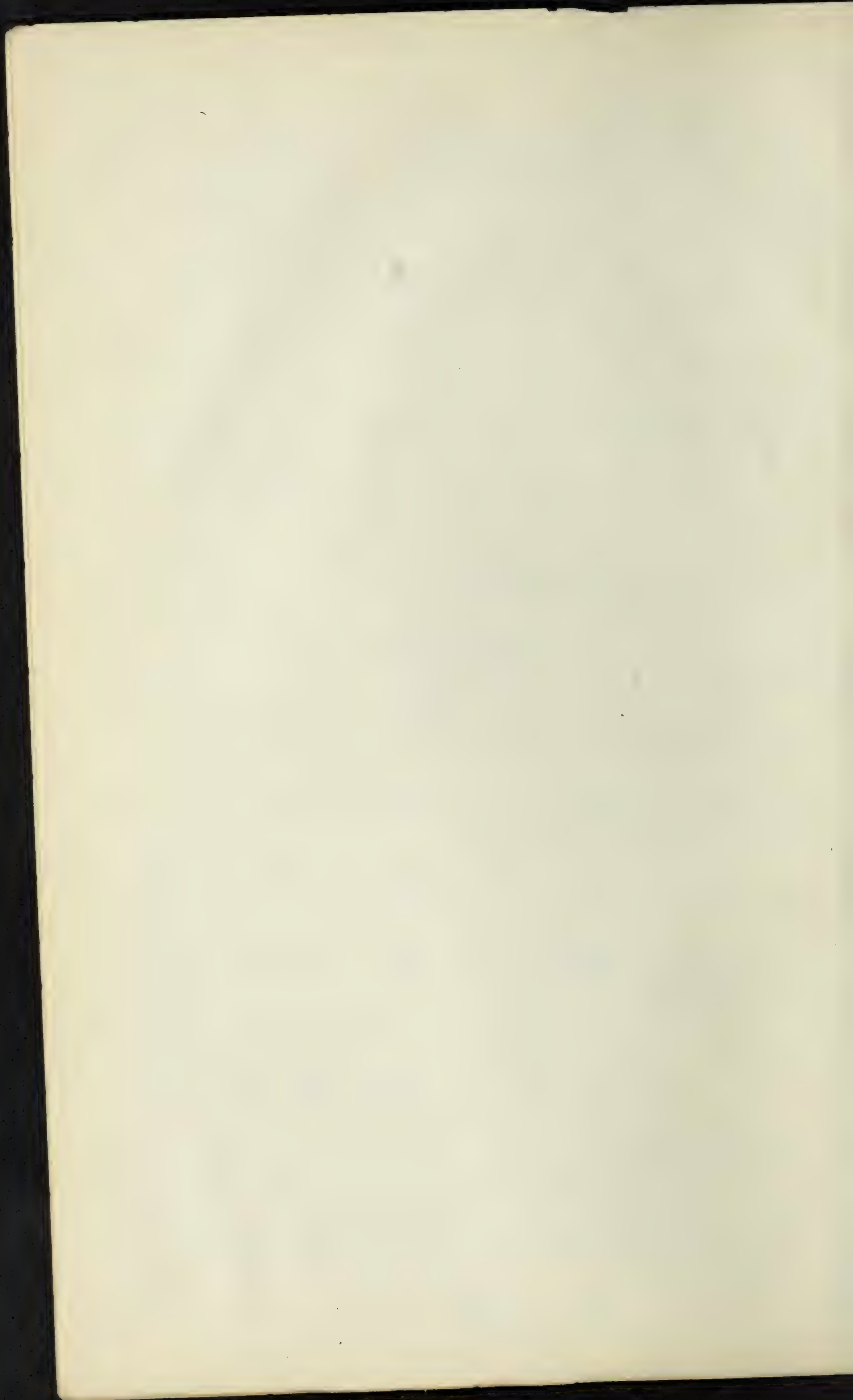
THE questions treated upon herein will, we trust, commend themselves as being of much importance at this juncture.

Many matters of keen moment are now engaging the attention of all sections of the population, and on the part of the industrial classes there exists an anxious desire to have the fullest information as to matters affecting their social welfare and true progress.

In this, the eleventh issue of the series, we have sought to continue our policy of imparting knowledge of a useful character calculated to elucidate some of the leading topics of interest, and we shall be rewarded if our efforts in this direction prove of advantage.

THE COMMITTEE.

DECEMBER 20, 1892.



LIST OF MAPS, DIAGRAMS, CITY PLANS, PREMISES, &c.



CO-OPERATIVE WHOLESALE SOCIETY.

Map of the World.	Kilmallock Premises.
Diagram—Twenty-nine Years' Progress of Co-operation.	Tralee Premises.
„ Twenty-eight Years' Progress of the Co-operative Wholesale Society.	Waterford Premises.
Balloon Street, Manchester—Registered Offices.	Armagh Premises.
Dantzic Street Premises, Manchester.	Copenhagen Premises.
City Plan of Manchester.	Hamburg Premises.
Newcastle Branch Premises.	Crumpsall Biscuit Works.
„ Drapery, Furnishing, and Provision Warehouse.	Leicester Boot and Shoe Works (two views).
City Plan of Newcastle.	City Plan of Leicester.
London Branch General Office, &c.	Heckmondwike Boot and Shoe Works.
„ Tea Department Premises.	Durham Soap Works.
„ Cocoa and Chocolate Works.	Batley Woollen Cloth Works.
Map of London.	Dunston Corn Mill.
Leeds Premises.	Longton Crockery Depôt.
City Plan of Leeds.	Furniture Factory, Broughton, near Manchester.
Bristol Premises.	Goole Warehouse.
City Plan of Bristol.	Garston and Rouen Offices.
Liverpool Office and Warehouses.	S.S. "Liberty."
New York Premises.	S.S. "Equity."
Cork Premises.	S.S. "Federation."
Limerick Premises.	S.S. "Pioneer."
	S.S. "Unity."
	S.S. "Progress."

SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY.

<i>Following Page 115 :</i>	Links Place Premises, Leith.
Twenty-four Years' Wholesale Distribution in Scotland.	Grange Place Premises, Kilmarnock.
Paisley Road Premises, Glasgow.	Trades Lane Premises, Dundee.
Clarence Street Premises, Glasgow.	Enniskillen Premises.
„ „ Interior of Hall, Glasgow.	Productive Works, Shieldhall, near Govan, Glasgow.
Dundas Street Premises, Glasgow.	Chancelot Roller Flour Mills, Edinbro'.

LIST OF CONTENTS.

	PAGES.
Co-operative Wholesale Society Limited.....	1 to 103
General Advertisements	104 „ 115
Scottish Co-operative Wholesale Society Limited.....	116 „ 170
Stock Exchanges: Their Origin and History—Henry Dunckley, M.A., LL.D.	171 „ 209
The Course of British Trade—George Howell, F.S.S., M.P.	210 „ 284
The Origin and Growth of the Art of Printing—Henry Slatter, J.P.	285 „ 300
The Possibilities of Machinery and Industry and some of their Probable Results on Social and Economic Conditions—Henry Dyer, C.E., M.A., D.Sc.	301 „ 338
Tea, Coffee, and Cocoa—John R. Jackson, A.L.S., &c.	339 „ 370
Foreign Competition in the East—Holt S. Hallett	371 „ 426
The Military and Naval Forces of the World and their Cost—Henry Dunckley, M.A., LL.D.	427 „ 463
Old Age Pensions—R. L. Everett, M.P.	464 „ 478
The Hosiery Trade—Anthony Mundella	479 „ 506
The World's Accumulation of Capital—T. Lloyd	507 „ 537
The Condition of the Working Class in Great Britain in 1842 and 1892—Sidney Webb	537 „ 554
A Historical Note as to Payment of Members of Parliament— A. H. Worthington	555 „ 560
The Fishing Industries of the United Kingdom—C. E. Fryer	561 „ 594
Can the Empire Feed its People?—James Long	595 „ 685
Silk: Its History and its Industries—Arthur Edwin Piggott, F.S.A.A.	686 „ 726
Miscellaneous.....	727 „ 846

ALPHABETICAL INDEX.

	PAGE.		
	English.	Scottish.	General.
ACTS of Parliament Passed during the Session of 1891-2	..	..	742
Accidents, Railway. Proportion of Passengers Killed from Causes beyond their own Control .....	..	..	809
Addresses, Telegraphic, List of	42	..	..
Administrations in Present Century .....	..	..	762
Advantages of Membership of Wholesale Societies.....	8	126	..
Annual Value of Property and Income Assessed, 1875-1891	..	..	800
Average Minimum Rate per Cent of Discount Charged by Bank of England .....	..	..	750
Average Price of Consolidated Stock .....	..	..	749
BANK Holidays.....	..	..	808
Bank Department, Wholesale Society	13	..	..
„ Union Bank of Scotland, List of Branches.....	..	127	..
Barometer Instructions.....	..	..	810
Batley Woollen Mill	33, 48, 85, 99	..	..
Births, Marriages, and Deaths, Registers of.....	..	..	808
Biscuits and Sweets Works (Wholesale Society).....	27, 48, 74, 94	..	..
Bonus on Labour .....	..	157	..
Boot and Shoe Department.....	48, 55, 89, 101	138	..
Boot and Shoe Factory .....	..	148	..
British Trade, The Course of.—G. Howell, F.S.S., M.P..	..	..	210
Brush Factory .....	..	152	..
CABINET, The .....	..	..	763
Cabinet Workshop .....	..	150	..
Calais and Goole Line of Steamers	37	..	..
Calendar for ascertaining any Day of the Week for any given time within the Present Century .....	..	..	828
Calendar for 1893 .....	..	..	834
Can the Empire Feed its People?—James Long.....	..	..	595
Capital, The World's Accumulation of.—T. Lloyd .....	..	..	507
Cash Arrangements.....	12	123	..
Census, The Indian .....	..	..	795
Century, Administrations in the Present .....	..	..	762
Chronology of the Wholesale Society	39, 40	..	..
Civil Service Supply Stores, Sales of .....	..	..	741
Coming Events in connection with the Wholesale Society in 1893	41	..	..
Committees, List of	3	121	..
Committees, Past Members of	43, 44	..	..
Committee, Members of, who have Died during Office ..	45	..	..
Condition of the Working Class in Great Britain in 1842 and 1892.—Sidney Webb .....	..	..	537
Confectionery Works .....	..	155	..
Congresses, Co-operative .....	..	..	832
Consolidated Stock, Average Price of .....	..	..	749

ALPHABETICAL INDEX.

	PAGE.		
	English.	Scottish.	General.
Co-operative Congresses .....	..	..	832
" Progress, 1862 to 1890 (United Kingdom) ..	..	..	727
" Societies and the Scottish Wholesale .....	..160-170	..	
" Societies, each with Trade over £200,000			
per year.....	..	..	738
" Societies, each with Trade over £100,000			
per year.....	..	..	740
" Productive Societies for which the Whole-			
sale Society are Agents	34, 35	..	107
" News, The .....	..	..	108
" Insurance Company .....	..	..	112
" Productive Society (Lancashire & Yorkshire)	..	..	104
" Union : Its Principles and Constitution....	..	..
CO-OPERATIVE WHOLESALE SOCIETIES : -			
Offices and Departments	1	119	..
List of Committees.....	3	121	..
" Officers and Departments	4	122	..
Committees, List of	3	121	..
Number of Employés in Departments	6	158	..
Trade Terms, Conditions of Membership, &c.	7	125	..
Advantages of Membership	8	126	..
Business Notices	9, 10, 11	123	..
Cash Arrangements	12	123	..
Confectionery Works .....	..	155	..
Union Bank of Scotland, List of Branches .....	..	127	..
Bank Department	13	..	..
Grocery and Provision Department .. 14, 48, 50, 88, 100	..130-135	..	..
Tea and Coffee	17-21, 48	..	..
Biscuits, Sweets, &c., Works, Crumpsall.... 27, 48, 74, 94	..	..	..
Drapery Department	22, 48, 52, 88, 101	136	..
Woollen Cloth Department..... 24, 48, 54, 89, 101	..	..	..
Tailoring Department .....	..	142	..
Shirt Factory .....	..	144	..
Boot and Shoe Department	48, 55, 89, 101	138	..
" Factory .....	..	148	..
Furniture Department .....	..	140	..
Furnishing	25, 48, 57, 90, 101	..	..
Cabinet Workshop .....	..	150	..
Printing Workshop.....	..	153	..
Preserve Works .....	..	154	..
Brush Factory.....	..	152	..
Bonus on Labour .....	..	157	..
Crockery Department, Longton	26, 48, 87, 99	..	..
Mantle Factory .....	..	147	..
Newcastle Branch	48, 59-65, 90-92, 102	..	..
London	48, 66-70, 92, 94, 103	..	..
Shoe Works, Leicester	29, 48, 76-79, 95	..	..
" Heckmondwike	31, 48, 71-73, 96	..	..
Slop Factory .....	..	146	..
Soap Works, Durham	32, 48, 80-83, 98	..	..
Tobacco Factory .....	..	156	..
Woollen Mills, Batley	33, 48, 85, 99	..	..
Leeds Ready Mades	48, 86, 99	..	..

ALPHABETICAL INDEX.

	PAGE.		
	English.	Scottish.	General.
CO-OPERATIVE WHOLESALE SOCIETIES:—			
Productive Societies for which the Wholesale Society are Agents	34, 35	..	..
Chronology.....	39, 40	..	..
Progress of the Wholesale Societies	46	..128-156	..
Shipping Department—Garston and Rouen	36, 48	..	..
" Goole and Calais	37, 48	..	..
" Goole and Hamburg.....	38, 48	..	..
Dunston Corn Mill	84	..	..
Coming Events in connection with the Wholesale Society in 1893	41	..	..
Telegraphic Addresses	42	..	..
Telephone Numbers	42	..	..
Committees, Past Members of	43, 44	..	..
Committee, Members of, who have Died during Office	45	..	..
Corn Mill, Dunston.....	84	..	..
Crockery Department	26, 48, 87, 99	..	..
Crumpsall Biscuit Works	27, 28, 48, 74, 94	..	..
DEALINGS with Land .....	..	..	751
Death Duties, The .....	..	..	753
Departments and Offices of the Wholesale Society.....	1	..119	..
" Officers of	4	..122	..
" No. of Employés in each	6	..158	..
" of the Wholesale—Progress of	46	..128-156	..
" Shipping	36-38, 48	..	..
Discount, Average Minimum Rate per Cent of .....	..	..	750
Drapery Department	22, 48, 52, 88, 101	..136	..
Dunckley, H.—Stock Exchanges: Their Origin and History .....	..	..	171
Dunckley, H.—The Military and Naval Forces of the World and their Cost.....	..	..	427
Dunston Corn Mill	84	..	..
Durham Soap Works	32, 48, 80-83, 98	..	..
Duties, Import, in the United Kingdom .....	..	..	745
" Stamp, Taxes, Excise .....	..	..	801
Dyer, Henry.—The Possibilities of Machinery and Industry and some of their Probable Results on Social and Economic Conditions .....	..	..	301
ECLIPSES .....	..	..	808
Employés, Number of	6	..158	..
English Mile compared with other European Measures..	..	..	795
English Money, Table Showing Sums Payable in—on Money Orders Issued in Foreign Countries, &c. ....	..	..	799
Everett, R. L., M.P.—Old Age Pensions .....	..	..	464
Expectation of Life .....	..	..	759
FISHING Industries of the United Kingdom, The.—			
C. E. Fryer .....	..	..	561
Foreign Competition in the East—Holt S. Hallett ....	..	..	371
Foreign Currencies, Table Showing Sums Payable in—on Money Orders in the United Kingdom .....	..	..	798

ALPHABETICAL INDEX.

	PAGE.		
	English.	Scottish.	General.
Foreign Moneys and their English Equivalents	796
Fryer, C. E.—The Fishing Industries of the United Kingdom	561
Furnishing Department of Wholesale Society..25, 48, 57, 90, 101
Furniture ,, ,, ,,	140	..
GARSTON and Rouen Line of Steamers	36, 48	..	..
Gladstone Ministry, The	763
Goole and Calais Line of Steamers	37, 48	..	..
,, and Hamburg ,,	38, 48	..	..
,, Tide Table.....	823
Grocery Departments, Wholesale Society ..14, 48, 50, 88, 100 ..	130-135	..	..
HALLETT, H. S.—Foreign Competition in the East	371
Hamburg and Goole Line of Steamers.....	38, 48	..	..
Heckmondwike Shoe Works	31, 48, 71-73, 96	..	808
Holidays, Bank	479
Hosiery Trade, The.—Anthony Mundella	802
House Duty	765
House of Commons—List of Members	210
Howell, George, M.P.—The Course of British Trade....
IMPORT Duties in the United Kingdom.....	745
Income Tax Rates from its First Imposition	747
,, and Expenditure of the United Kingdom, year ending March 31st, 1892	748
Indian Census, The.....	795
Inland Book Post	804
,, Parcel Post, posting of parcels	806
,, Pattern and Sample Post	807
,, Registered Newspapers, Postage on	805
,, Parcels Compensation for Loss and Damage of	807
Instructions, Barometer	810
Insurance Company, Co-operative	108
Intestates' Personal Estates, Rules for Distribution of..	756
Intestates' Estates Act, 1890, The	755
Introductory	v. ..	117	..
JACKSON, J. R.—Tea, Coffee, and Cocoa	339
LANCASHIRE and Yorkshire Productive Society	112
Land, Dealings with	751
Law Costs on the Sale, Purchase, or Mortgage of Real Property, Houses, or Land, Scale of	751
Law Relating to Societies, Summary of the.....	105
Law Sittings	808
Leeds Ready Mades	86	..	..
Leicester Co-operative Shoe Works	29, 48, 76-79, 95	..	..
Life, Expectation of	759
Limitation of Weight, Parcels.....	806
,, Size ,,	806
List of Administrations in the Present Century	762
List of Members of the House of Commons	765

ALPHABETICAL INDEX.

	PAGE.		
	English.	Scottish.	General.
Liverpool Tide Table .....	..	..	821
Lloyd, T.—The World's Accumulation of Capital .....	..	..	507
London Branch	48, 66-70, 92-94, 103	..	..
Long, James.—Can the Empire Feed its People? .....	..	..	595
Longton Crockery Department	26, 48, 87, 99	..	..
MACHINERY and Industry, Possibilities of, and some of their Probable Results on Social and Economic Conditions.—Henry Dyer .....	..	..	301
Mantle Factory .....	..	147	..
Members of Committee who have Died during time of Office	45	..	..
Membership of Wholesale Society, Advantages of	8	126	..
Meteorological Table .....	..	..	813
Mile, The English, compared with other European Measures .....	..	..	795
Military and Naval Forces of the World and their Cost.— H. Dunckley .....	..	..	427
Ministry, The Gladstone .....	..	..	763
Money Orders for the United Kingdom .....	..	..	805
Moneys, Foreign, and their English Equivalents .....	..	..	796
Monthly Meteorological Tables .....	..	..	814
Mundella, Anthony.—The Hosiery Trade .....	..	..	479
NEWCASTLE Branch	48, 59-65, 90-92, 102	..	..
Newspaper Society .....	..	..	107
Notices, Wholesale Society's Business	9, 10, 11	123	..
OFFICERS of the Co-operative Wholesale	4	122	..
Old Age Pensions.—R. L. Everett, M.P. ....	..	..	464
PARLIAMENTS of the United Kingdom .....	..	..	762
Past Members of Committees	43, 44	..	..
Patent for Inventions (Letters) .....	..	..	802
Payment of Members of Parliament, A Historical Note as to.—A. H. Worthington .....	..	..	555
Piggott, A. E.—Silk: Its History and its Industries ....	..	..	686
Postage on Inland Registered Newspapers .....	..	..	805
Post Cards .....	..	..	805
Postal Regulations .....	..	..	804
„ Orders .....	..	..	805
Postage, Rates of .....	..	..	804
Post-office Savings Banks .....	..	..	807
Preface	v.	117	..
Preserve Works .....	..	154	..
Presidents of the United States of America .....	..	..	794
Price of Three per cent Consolidated Stock .....	..	..	749
Prime Ministers since 1834 .....	..	..	764
Principal Articles of the Calendar for the Year 1893 ....	..	..	833
„ Events in connection with the Wholesale Society	39, 40	..	..
Principles and Constitution of the Co-operative Union ..	..	..	104
Printing, The Origin and Growth of the Art of.— H. Slatter .....	..	..	285

ALPHABETICAL INDEX.

	PAGE.		
	English.	Scottish.	General.
Printing Workshop.....	..	153	..
Productive Society, Lancashire and Yorkshire .....	..	..	112
" Societies for which the Wholesale Society are			
Agents	34, 35	..	..
Progress of the Wholesale Societies	46	128-156	..
" " " " Yearly	88-99	128	..
Progress of Co-operation (United Kingdom).....	..	..	727
Property Account	48	..	..
" and Income—Total Annual Assessed Value ....	..	..	800
Public Acts of Parliament Passed during the Session of			
1891-92 .....	..	..	742
Public Income and Expenditure of the United Kingdom			
for the Year ending March 31st, 1892 .....	..	..	748
QUEEN and Royal Family, The .....	..	..	761
RAILWAY Accidents, Proportion of Passengers Killed,			
&c. ....	..	..	809
Ready Reckoner and Wages Table .....	..	..	829
Ready Mades, Leeds	86, 99	..	..
Registration .....	..	..	807
Registers of Births, Marriages, and Deaths .....	..	..	808
Remarks on the Weather .....	..	..	817
Rouen and Garston Line of Steamers	36, 48	..	..
Rough Seas, Use of Oil on.....	..	..	820
Royal Family, The Queen and.....	..	..	761
Rules by which the Personal Estates of Persons Dying			
Intestate are Distributed .....	..	..	756
Rules of Division according to the Law of Scotland of			
the Movable Estate of a Person who has Died			
Intestate .....	..	..	757
SALES of Civil Service Supply Stores .....	..	..	741
Savings Banks, Notices, &c.....	..	..	807
Scottish Wholesale Society .....	..	116-170	..
Shirt Factory .....	..	144	..
Shoe Works, Leicester (Co-operative)	29, 48, 76-79, 95	..	..
Heckmondwike.....	31, 48, 71-73, 96	..	..
Silk: Its History and its Industries.—A. E. Piggott ....	..	..	686
Slatter, Henry—The Origin and Growth of the Art of			
Printing .....	..	146	..
Slop Factory.....	..	..	..
Soap Works, Durham	32, 48, 80-83, 98	..	..
Societies—Co-operative, and the Wholesale .....	..	160-170	..
Societies—Co-operative, each with Trade over £200,000			
per year.....	..	..	738
Societies—Co-operative, each with Trade over £100,000			
per year.....	..	..	740
Societies — Co-operative Productive, for which the			
"Wholesale" are Agents	34, 35	..	..
Stamp, &c., Duties .....	..	..	801
Statistics of Co-operative Wholesale Society	46-103	128-170	..

ALPHABETICAL INDEX.

	PAGE.		
	English.	Scottish,	General.
Steamship Lines (Co-operative)—Garston and Rouen ..	36, 48	..	..
" " " Goole and Calais	37, 48	..	..
" " " Goole and Hamburg ..	38, 48	..	..
Stock Exchanges: Their Origin and History.—Henry Dunckley .....	..	..	171
Summary of Law Relating to Societies .....	..	..	105
Sweets Works, Crumpsall	27, 28, 48, 74, 94	..	..
T ABLE Showing Sums Payable in Foreign Currencies on Money Orders Issued in United Kingdom .....	..	..	798
Table Showing Sums Payable in English Money on Money Orders Issued in Foreign Countries, &c .....	..	..	799
Table Showing the Number of Days between any Two Dates ..	..	..	825
Table Showing Number of Days from any Day of one Month to same Day of any other Month .....	..	..	827
Tailoring Factory .....	..	142	..
Tea and Coffee Department of Wholesale Society ..	17-21, 48	..	..
Tea, Coffee, and Cocoa.—John R. Jackson .....	..	..	339
Telegraphic Addresses	42	..	..
Telephone Numbers	42	..	..
Telegrams .....	..	..	805
Terms and Abbreviations Commonly Used in Business ..	..	..	831
Terms and Conditions of Membership of Wholesale Society	7	125	..
The Intestates' Estates Act, 1890 .....	..	..	755
Tide Table, Liverpool .....	..	..	821
" Goole .....	..	..	823
Time all over the World .....	..	..	800
Tobacco Factory .....	..	156	..
Transfers .....	..	..	802
U NION Bank of Scotland, List of Branches .....	..	127	..
" Co-operative, its Principles and an Account of ..	..	..	104
United Kingdom, the Public Income and Expenditure, 1892	..	..	748
" " Co-operative Progress in the years 1862-90 ..	..	..	727
" " Import Duties in the .....	..	..	745
" " Money Orders for the .....	..	..	805
" " Parliaments of the .....	..	..	762
" States, Presidents of .....	..	..	794
Use of Oil on Rough Seas .....	..	..	820
W AGES Table and Ready Reckoner .....	..	..	829
Weather, Remarks on the .....	..	..	817
Webb, Sidney.—The Condition of the Working Class in Great Britain in 1842 and 1892 .....	..	..	537
Weights and Measures .....	..	..	830
Wholesale Society	1	116-170	..
Woollen Cloth Department	24, 48, 54, 89, 101	..	..
" Mill, Batley	33, 48, 85, 99	..	..
Worthington, A. H.—A Historical Note as to Payment of Members of Parliament .....	..	..	555

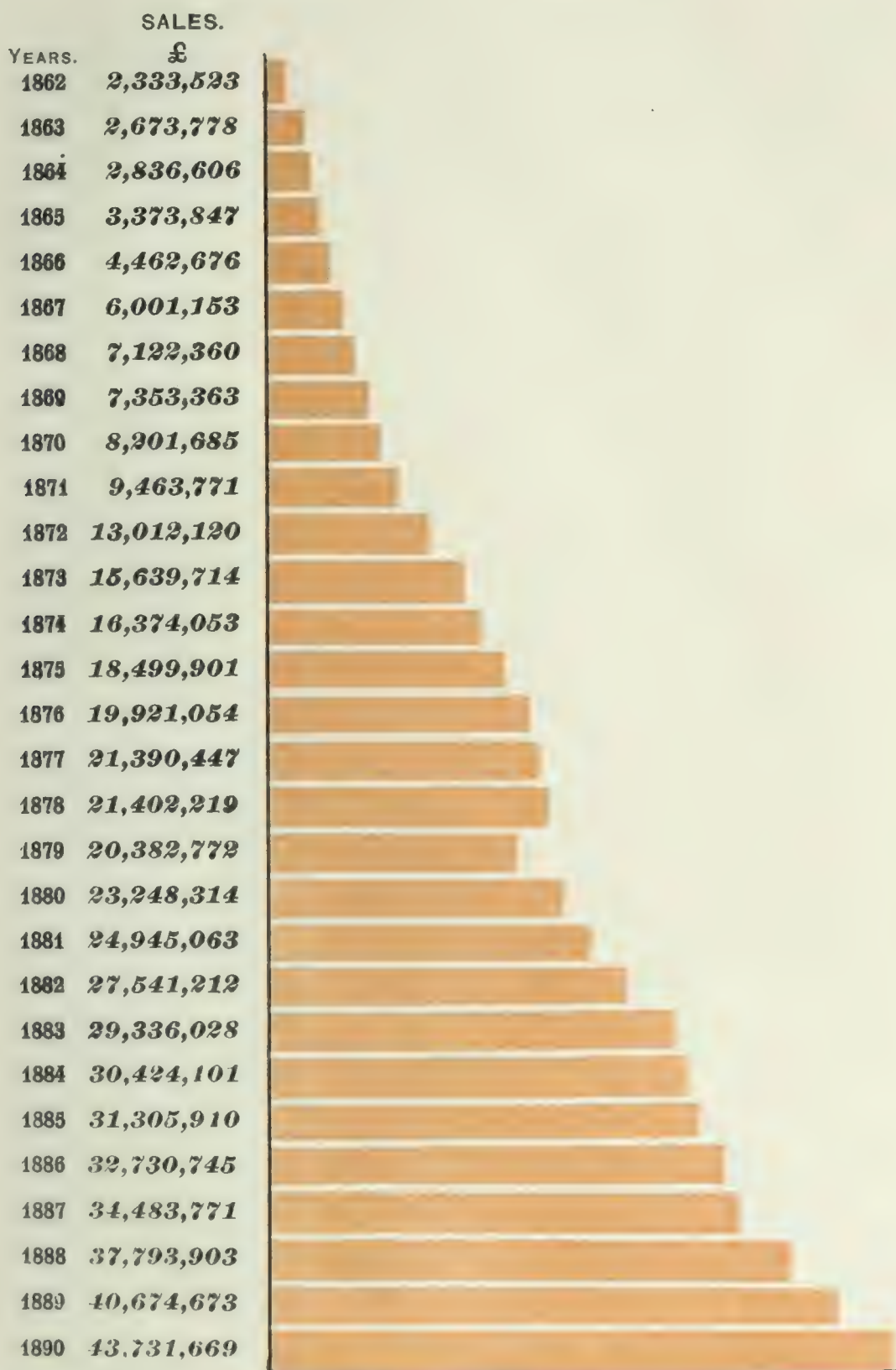
THE
Co-operative Wholesale Society
LIMITED.



PLATES, ADVERTISEMENTS, STATISTICS, &c.,

PAGES 1 TO 115.

Twenty-nine Years' Progress of Co-operative Societies in the United Kingdom.

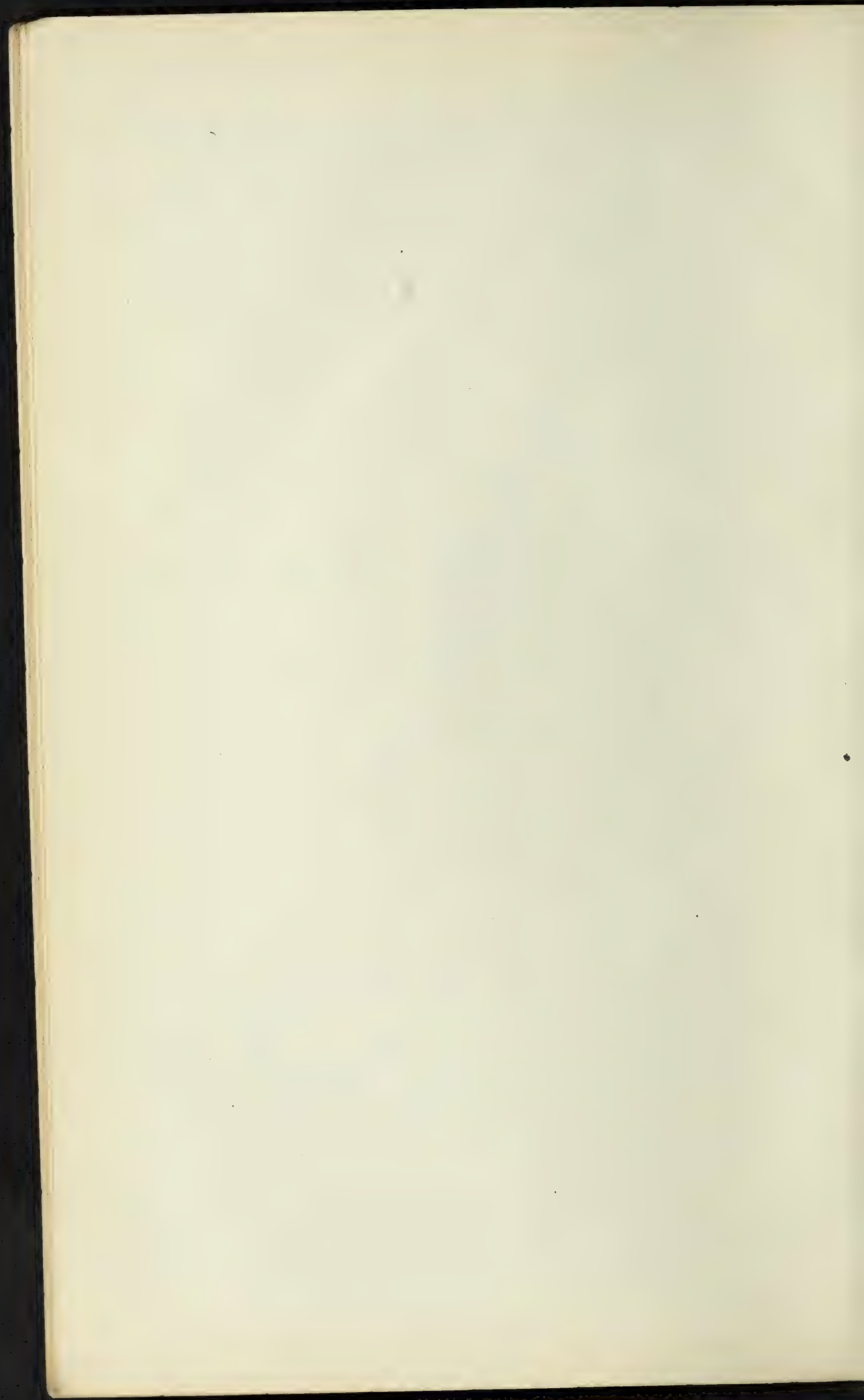


TOTAL SALES IN THE TWENTY-NINE YEARS, 1862 TO 1890 £556,660,431
TOTAL PROFITS IN THE TWENTY-NINE YEARS, 1862 TO 1890..... £47,685,118

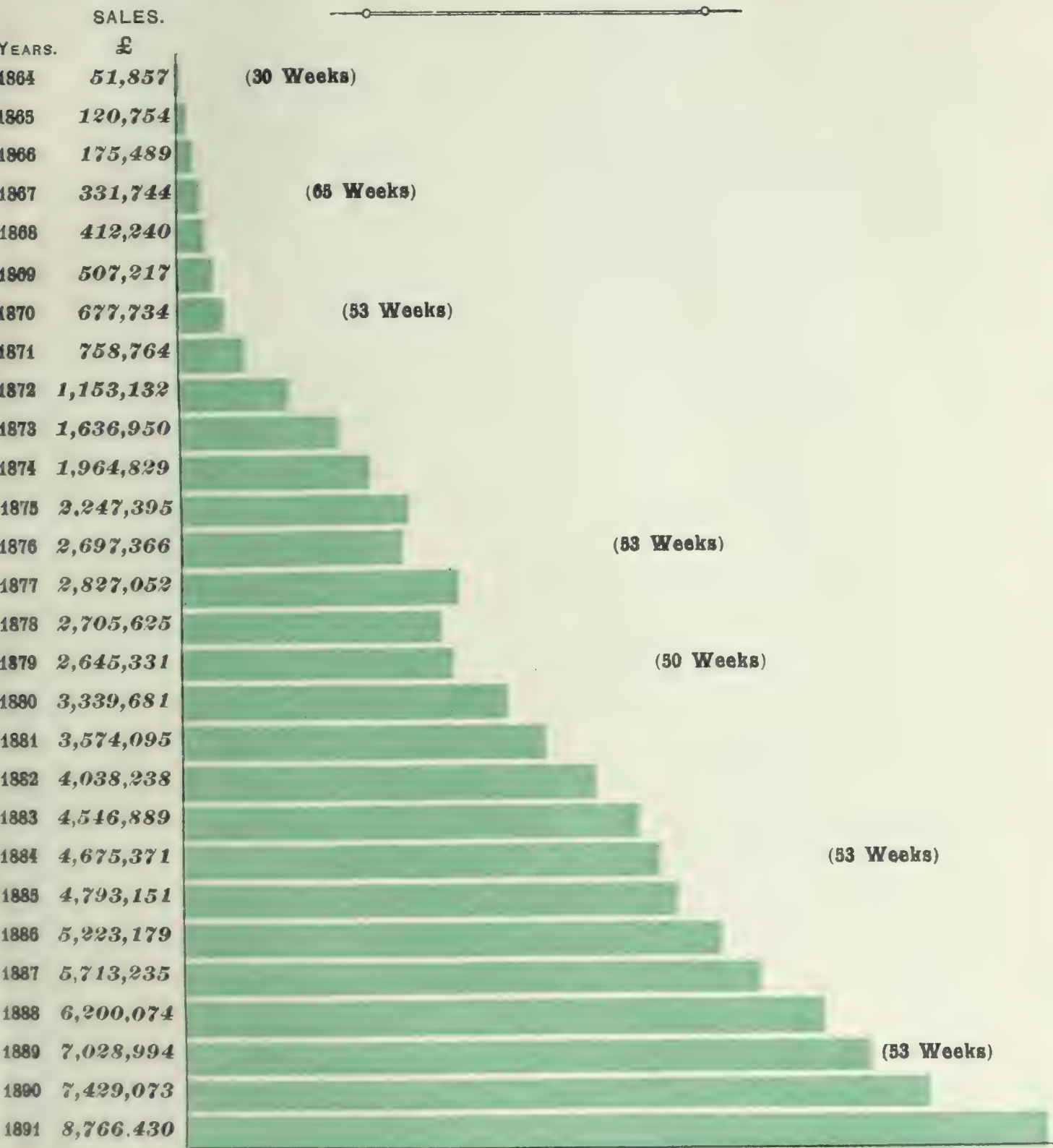
STATISTICAL POSITION OF CO-OPERATIVE SOCIETIES IN THE UNITED KINGDOM,
DECEMBER 31st, 1890.

*Compiled from the Returns made by Societies to the Registrar and
Co-operative Union.*

Number of Members	1,140,573	Sales for 1890	£43,731,669
Share Capital.....	£12,783,629	Net Profits for 1890	4,275,617
Loan Capital	3,169,155	Devoted to Education, 1890 ..	27,587



Twenty-eight Years' Progress of the Co-operative Wholesale Society Limited.



TOTAL SALES IN THE TWENTY-EIGHT YEARS, 1864 TO 1891 £86,241,839

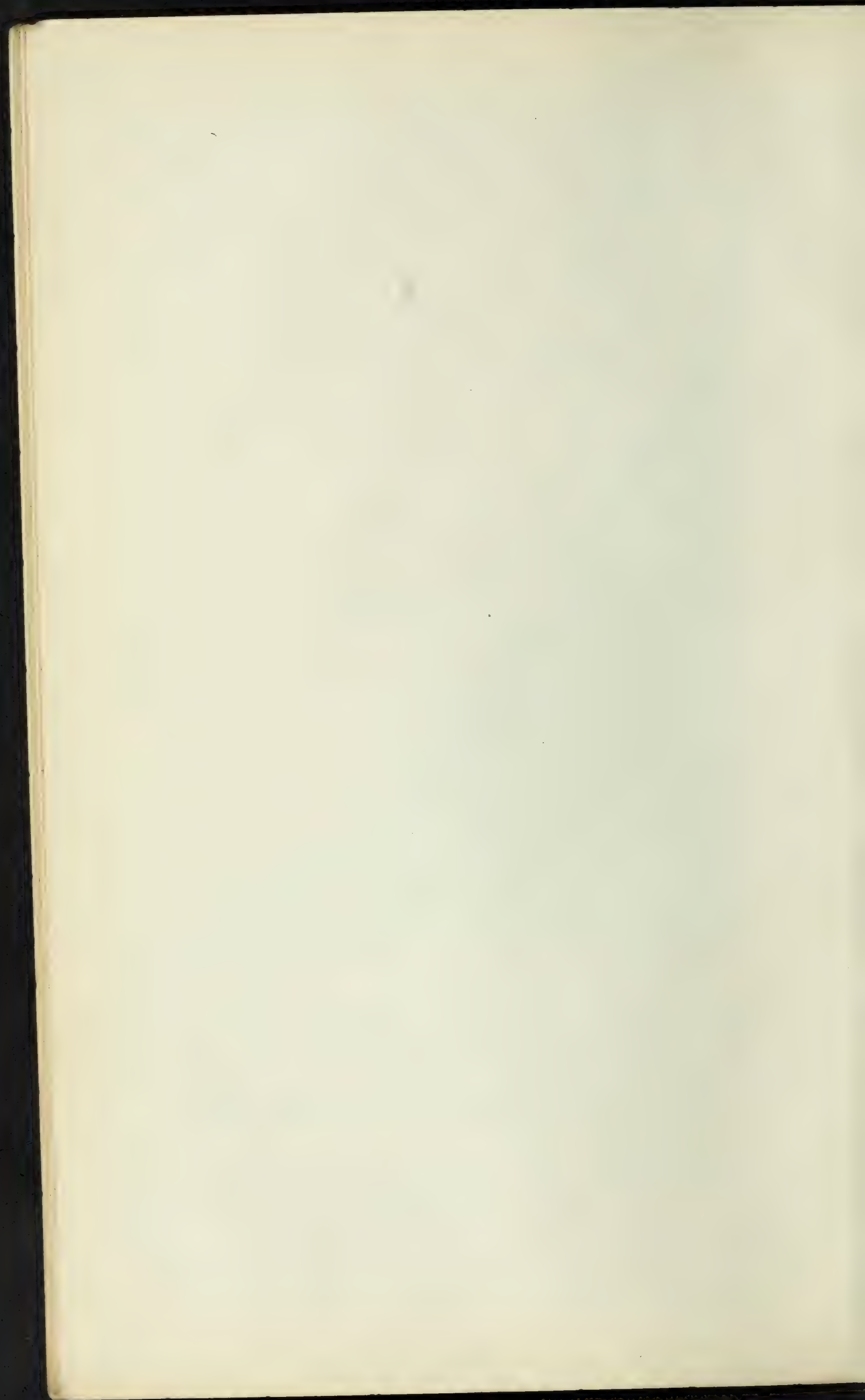
TOTAL PROFITS IN THE TWENTY-EIGHT YEARS, 1864 TO 1891 £1,163,657

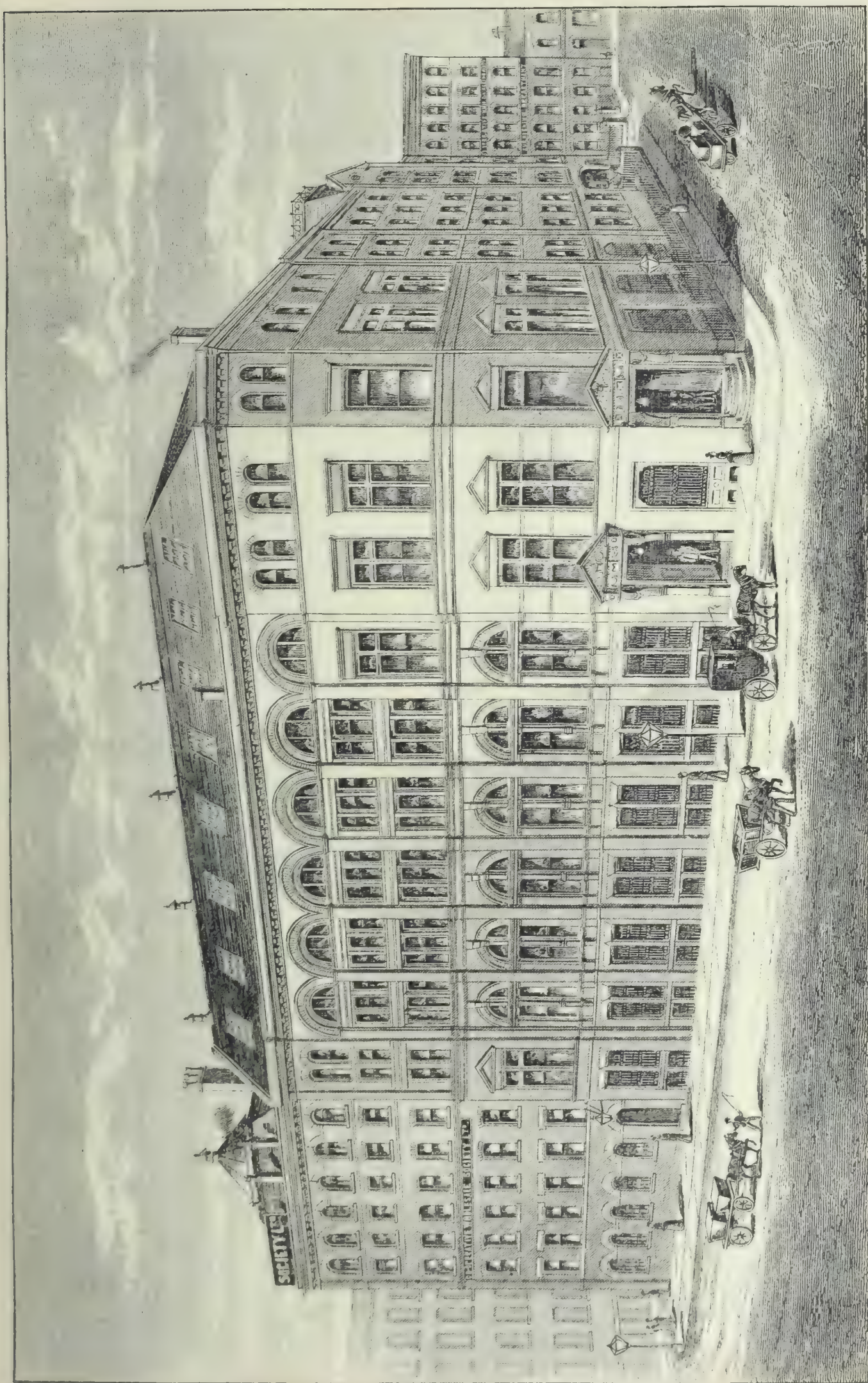
NOTE.—The above diagram is constructed to show the proportionate yearly variation in the sales. The size of each space is calculated on the basis of a year of 52 weeks.

STATISTICAL POSITION OF THE CO-OPERATIVE WHOLESALE SOCIETY LIMITED,

DECEMBER 26TH, 1891.

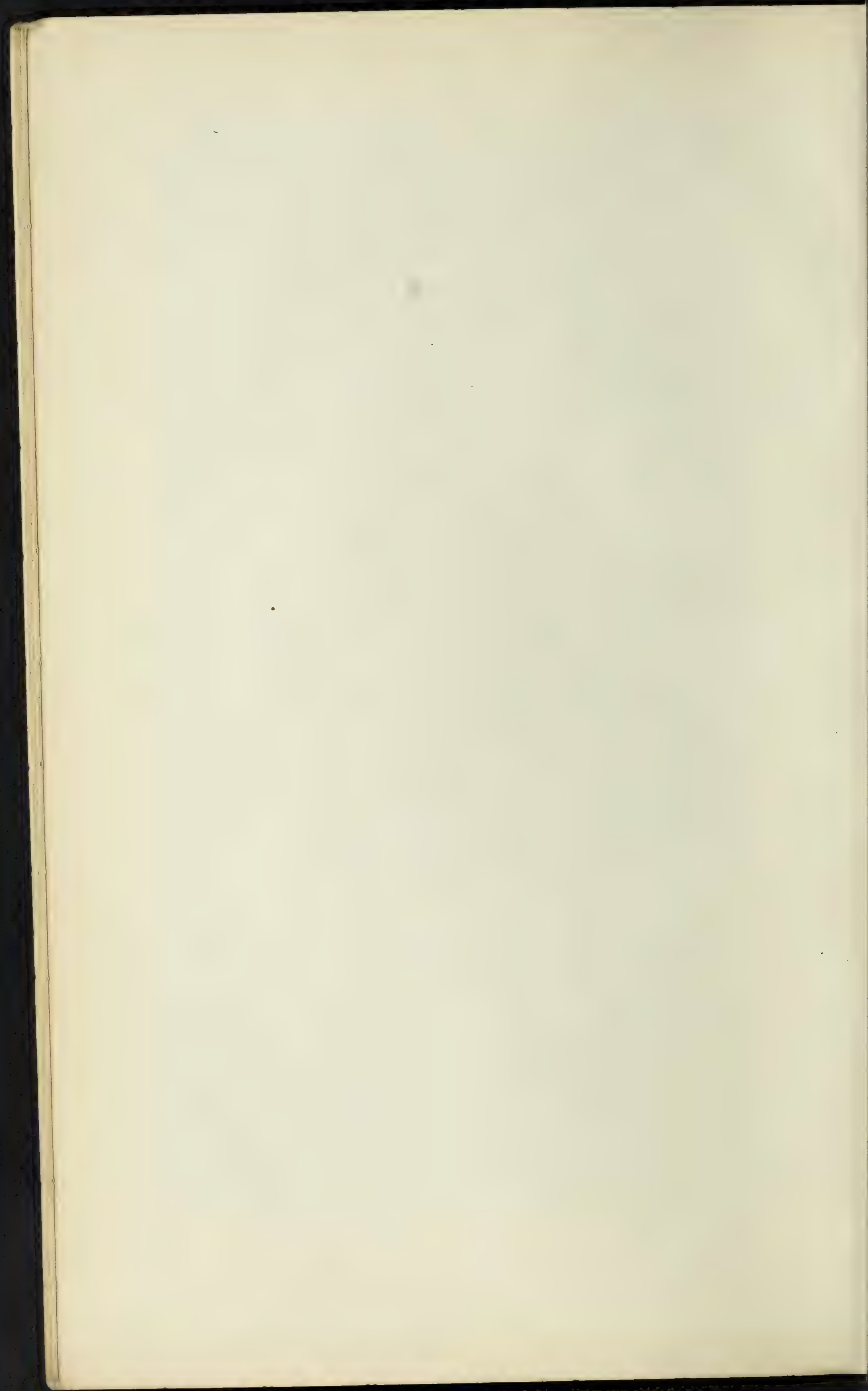
Number of Societies holding Shares	966		
Number of Members belonging to	751,269	Reserve Fund—Trade and Bank..	£ 53,165
Shareholders		Insurance Fund	193,115
Share Capital.....	£473,956	Sales for Year 1891	8,766,430
Loans and Deposits	£900,752	Net Profits for Year 1891.....	135,008

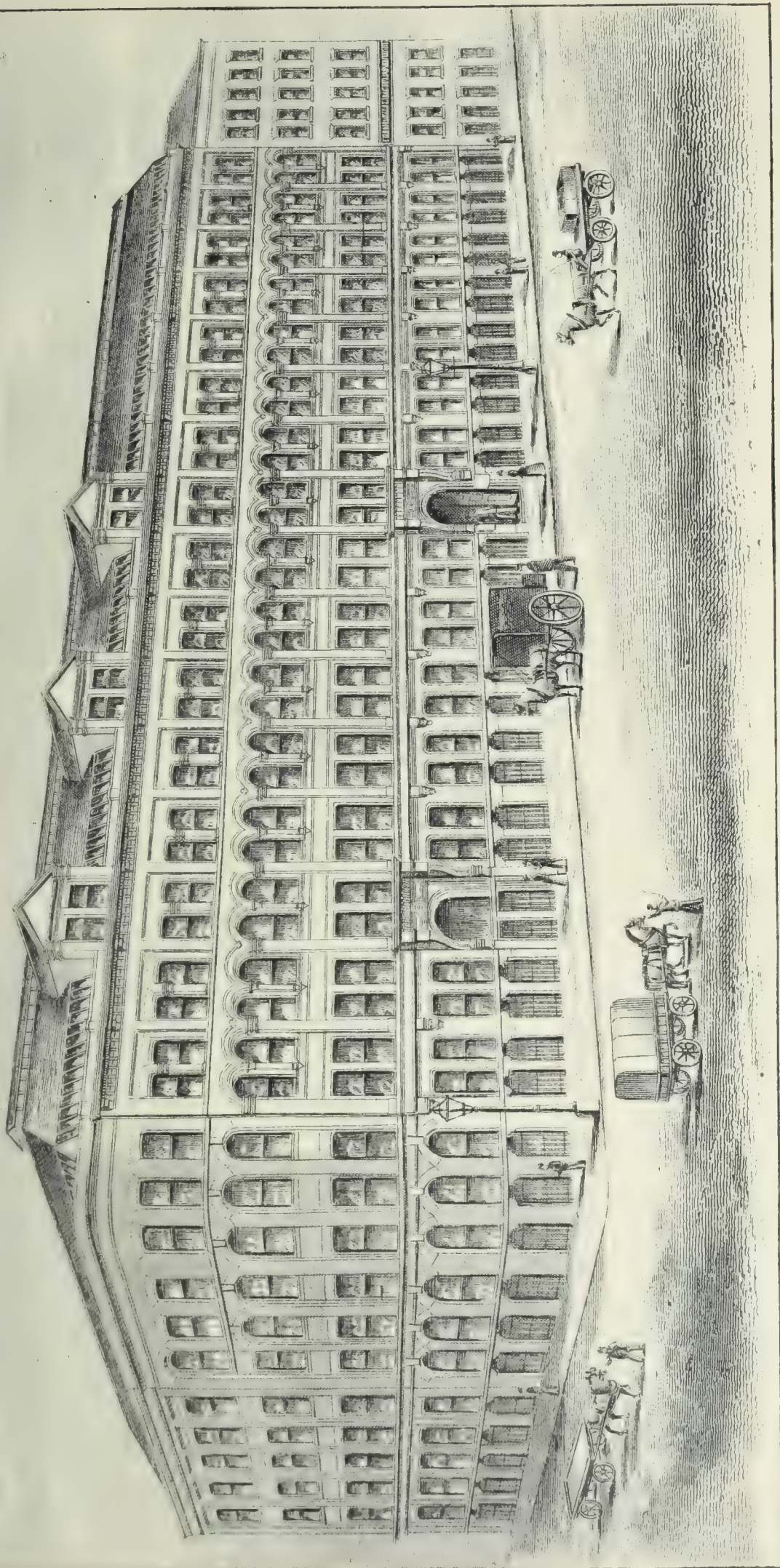




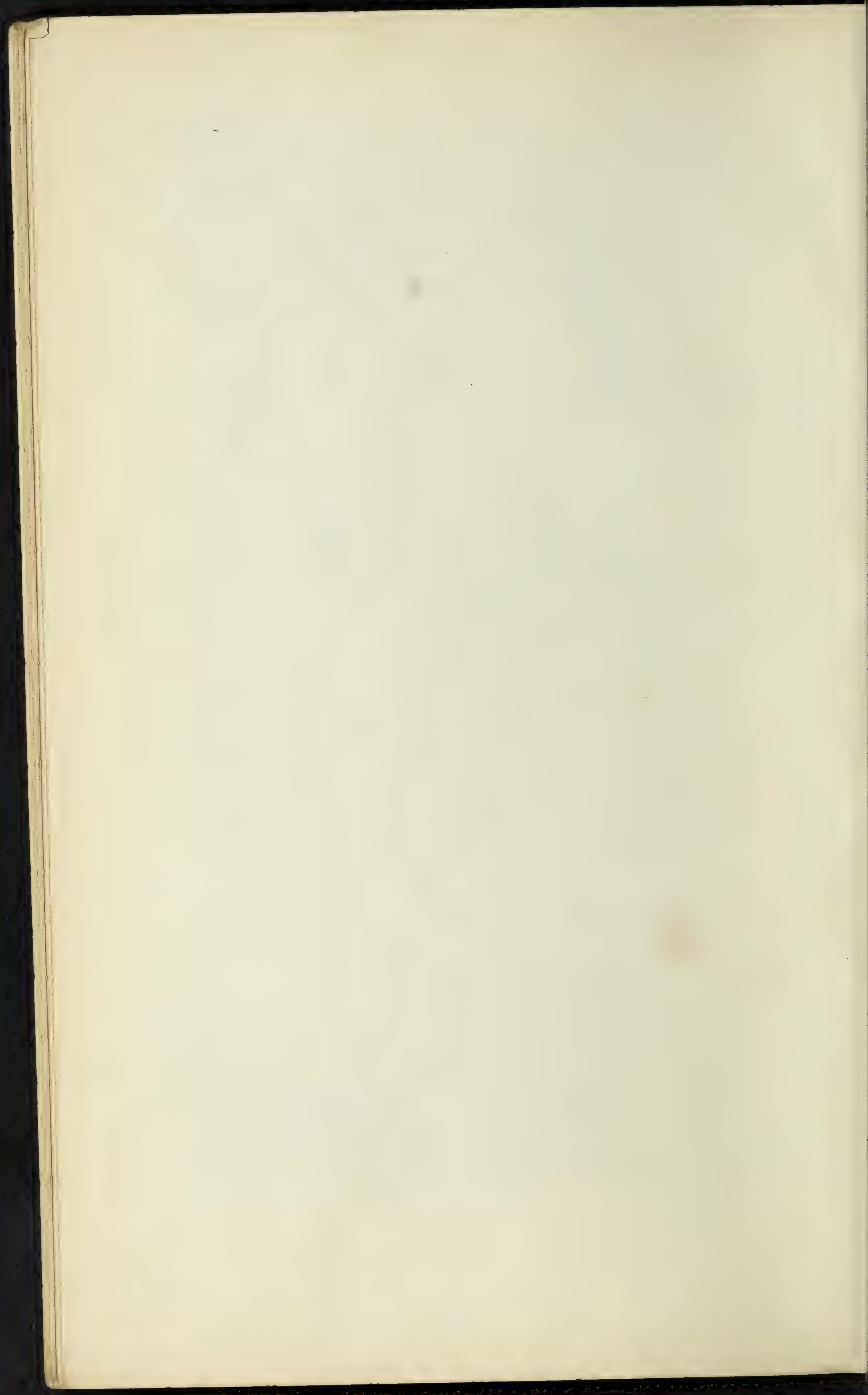
MANCHESTER.

REGISTERED OFFICES, BANK, CENTRAL GROCERY AND PROVISION, BOOT AND SHOE, AND FURNISHING WAREHOUSES,
BALLOON STREET AND HOLGATE STREET. (See pages 13 to 16, 25, 48 to 51, 55 to 58, 88 to 90, 100 and 101.)



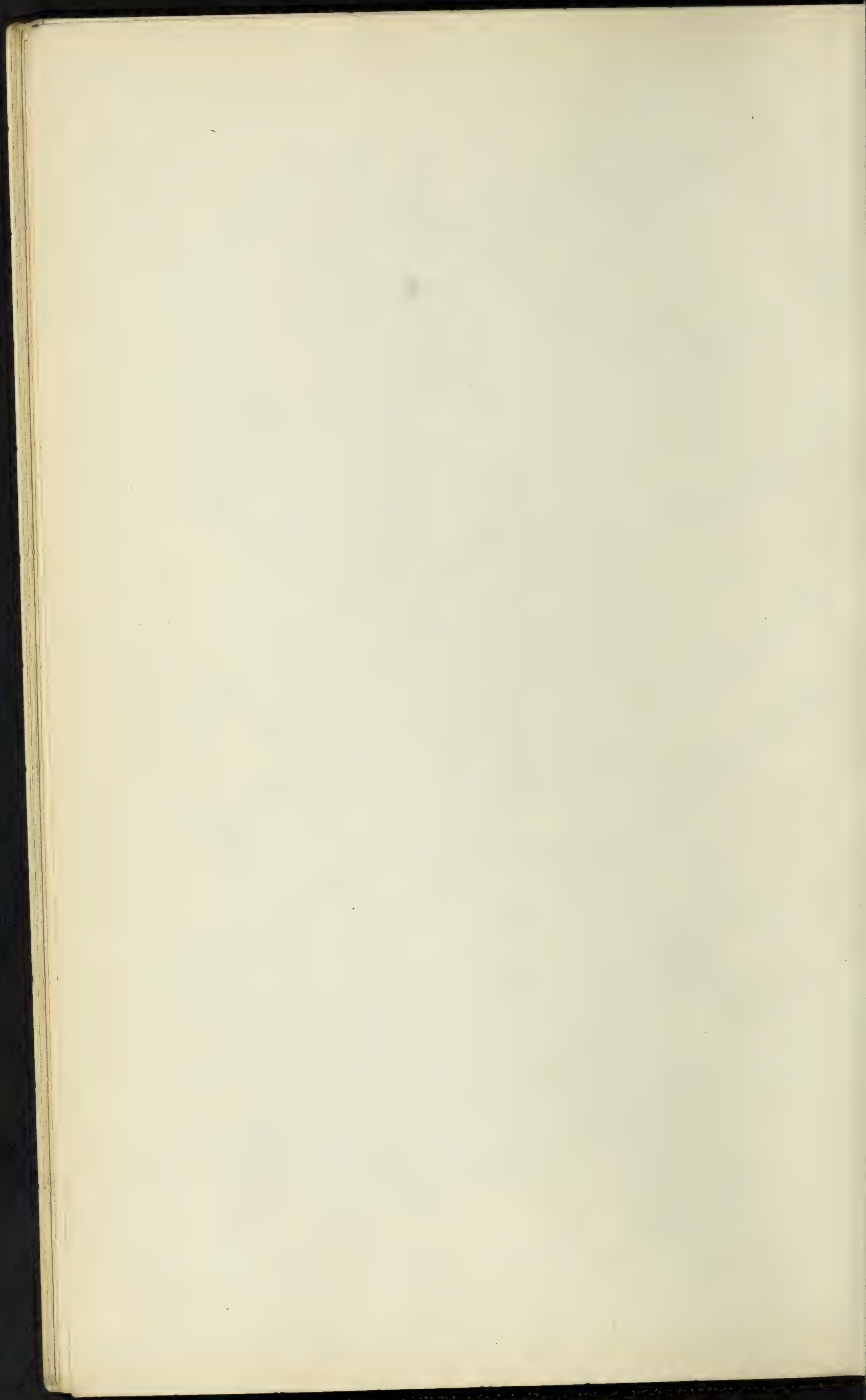


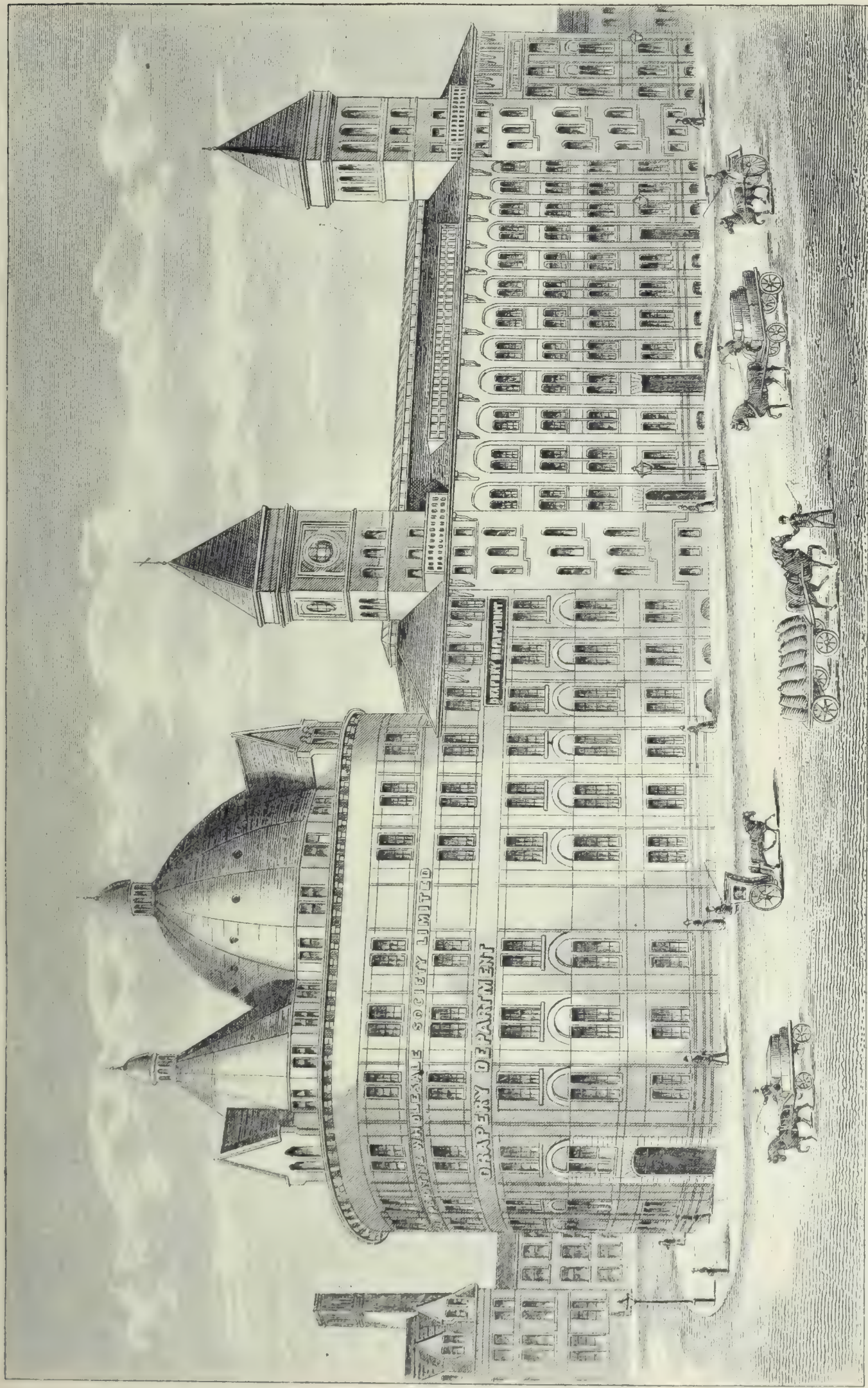
MANCHESTER DRAPERY, WOOLLEN CLOTH, AND READY-MADES DEPARTMENTS.
(See pages 22 to 24, 48, 52 to 54, 88, 89 and 101.)



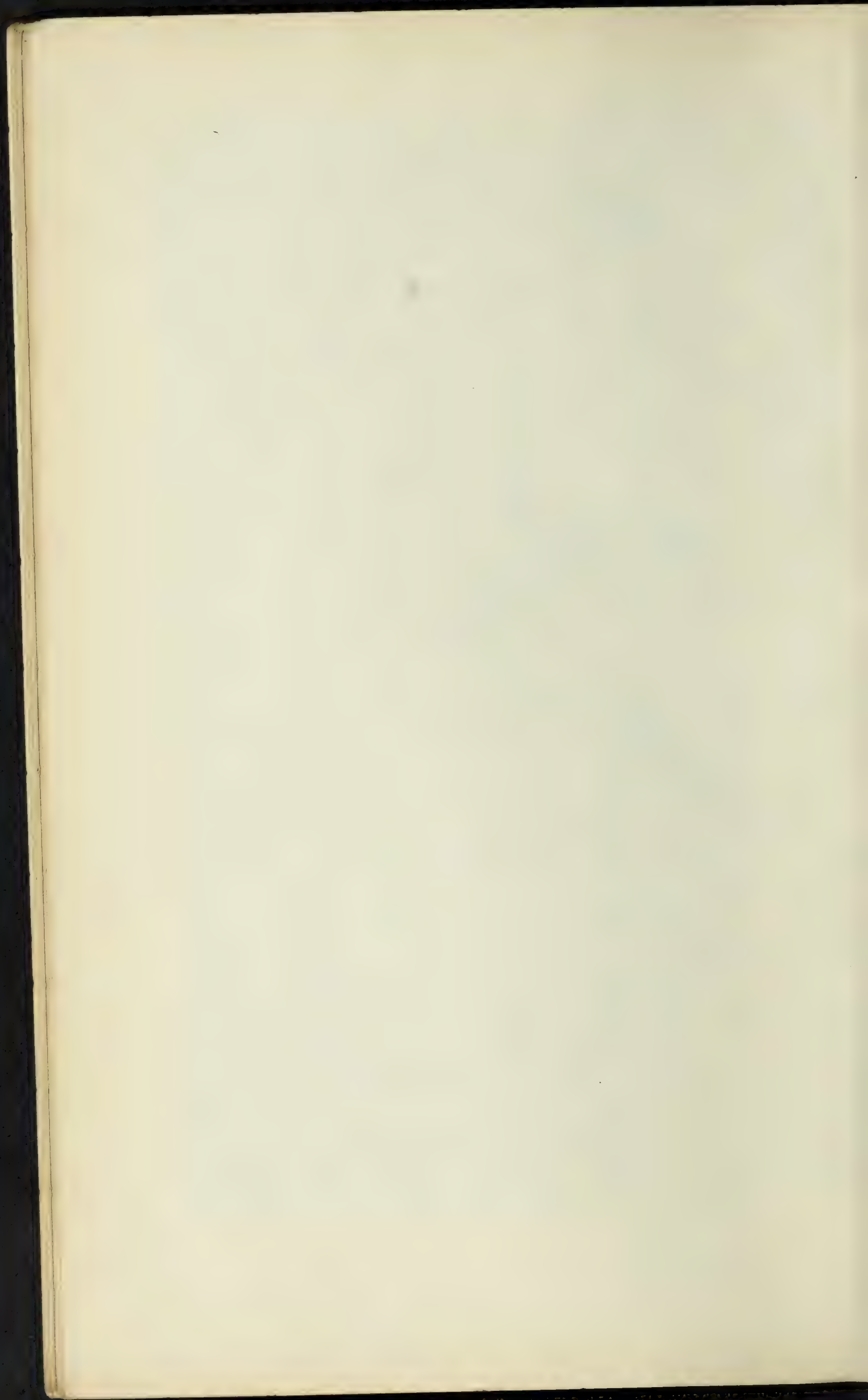
SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S CENTRAL OFFICES AND WAREHOUSE, FROM THE RAILWAY STATIONS AND PRINCIPAL PLACES.

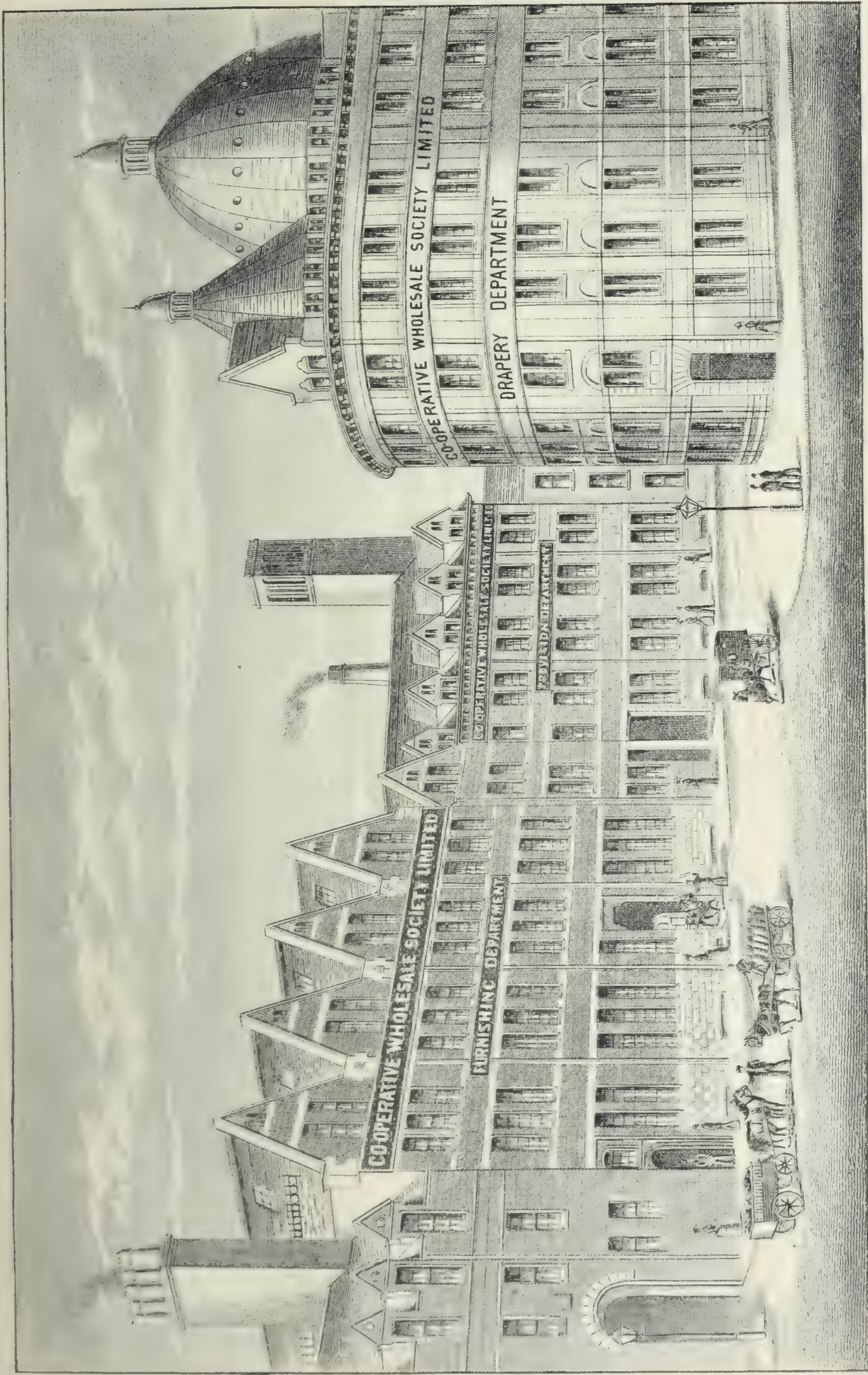




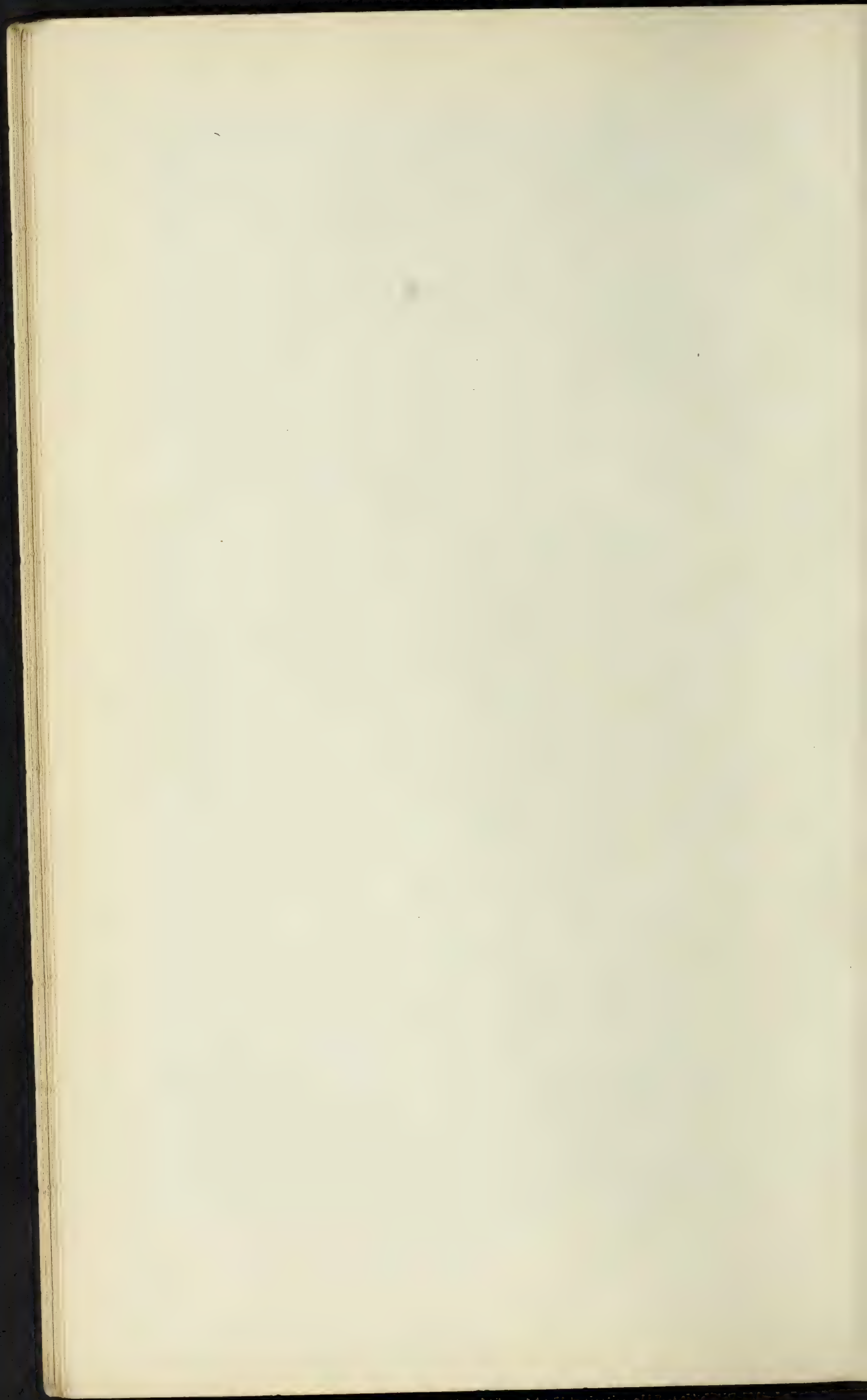


NEWCASTLE BRANCH.
GROCERY, DRAPERY, AND BOOT AND SHOE DEPARTMENTS,
WATERLOO STREET. (See pages 48, 59 to 64, 90, 91 and 102.)





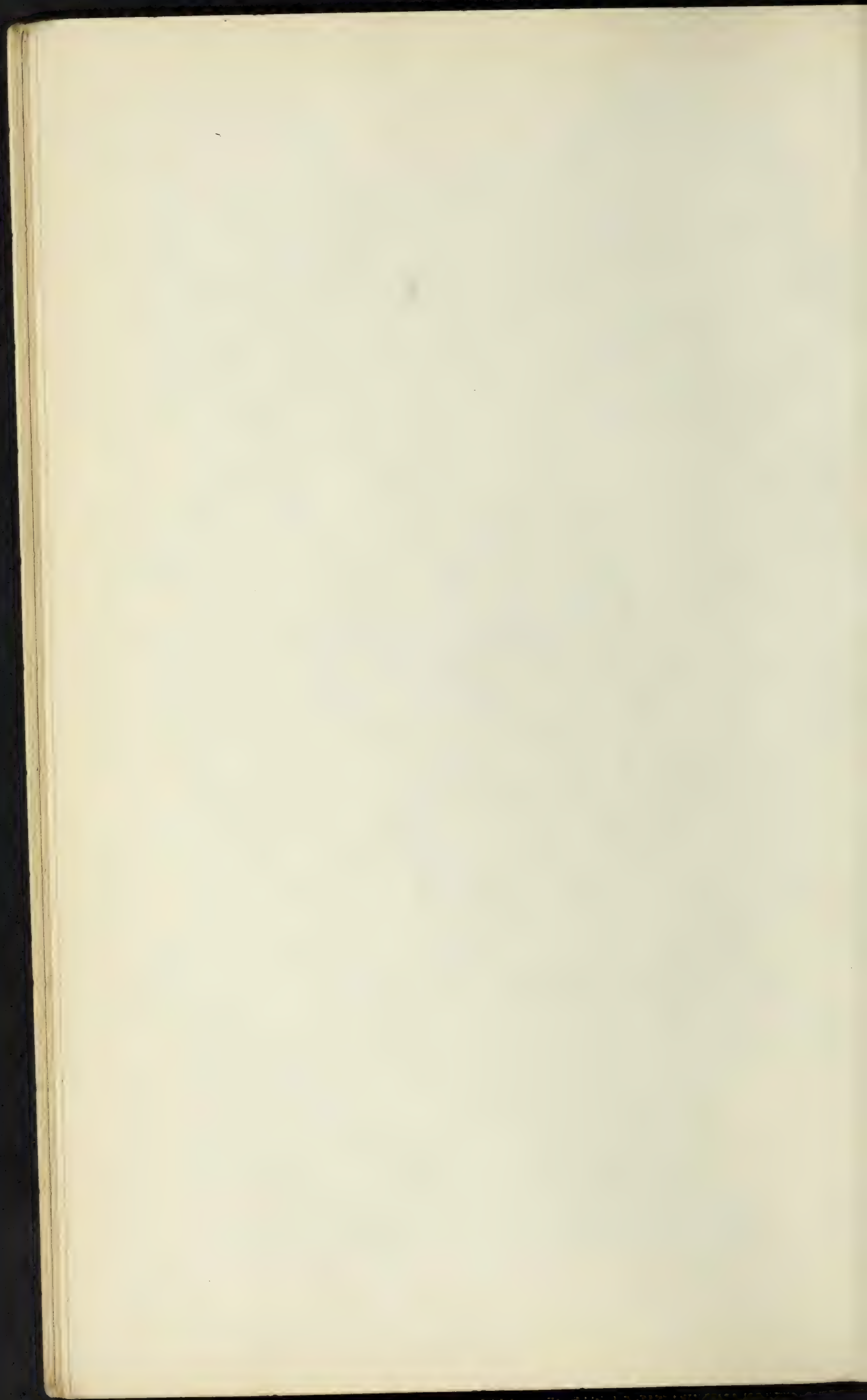
NEWCASTLE DRAPERY, FURNISHING, AND PROVISION WAREHOUSES,
THORNTON STREET. (See pages 48, 59 to 62, 65, 90 to 92, and 102.)



PLAN OF NEWCASTLE.

SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S NEWCASTLE
BRANCH PREMISES, FROM THE RAILWAY STATION AND PRINCIPAL PLACES.



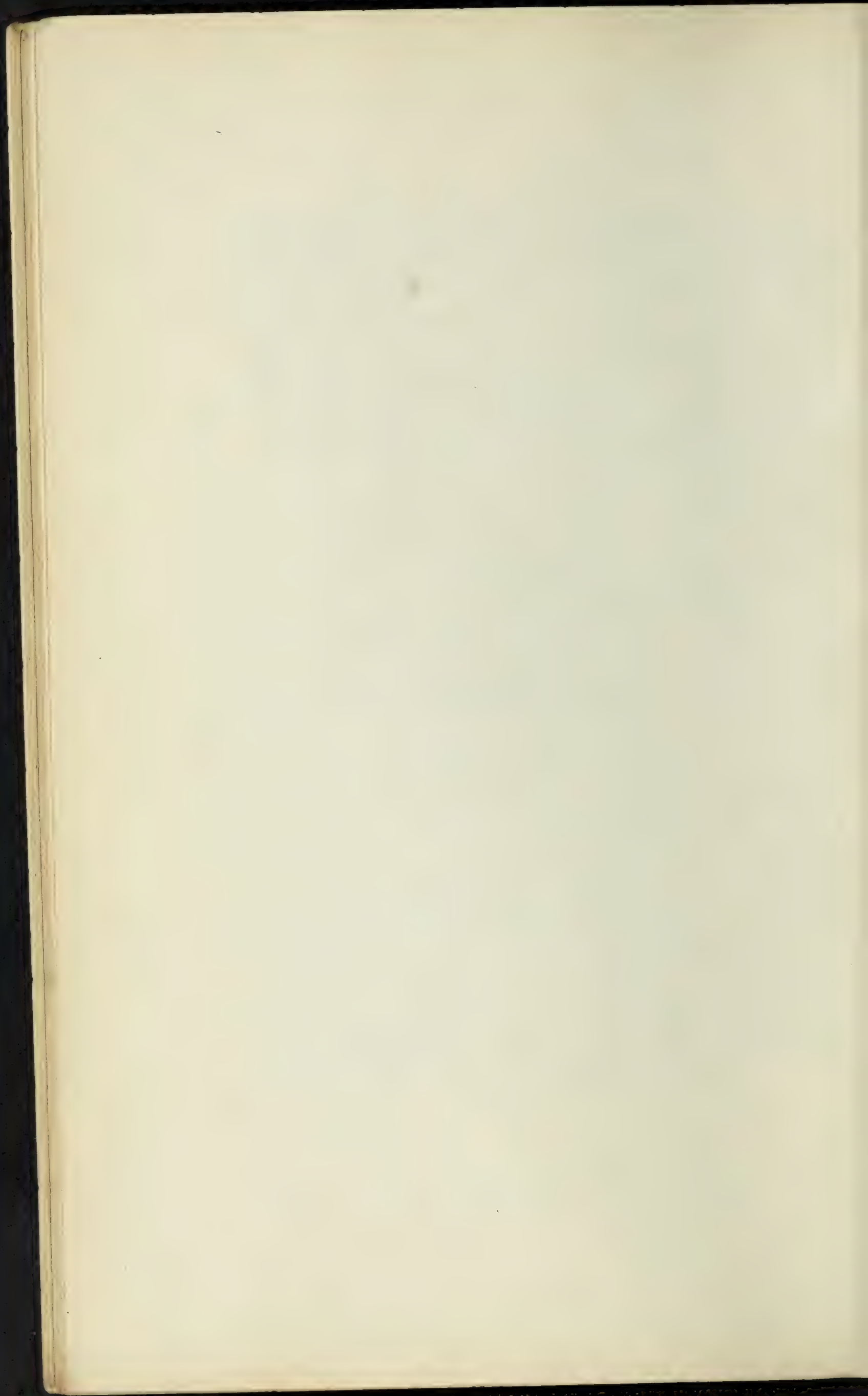




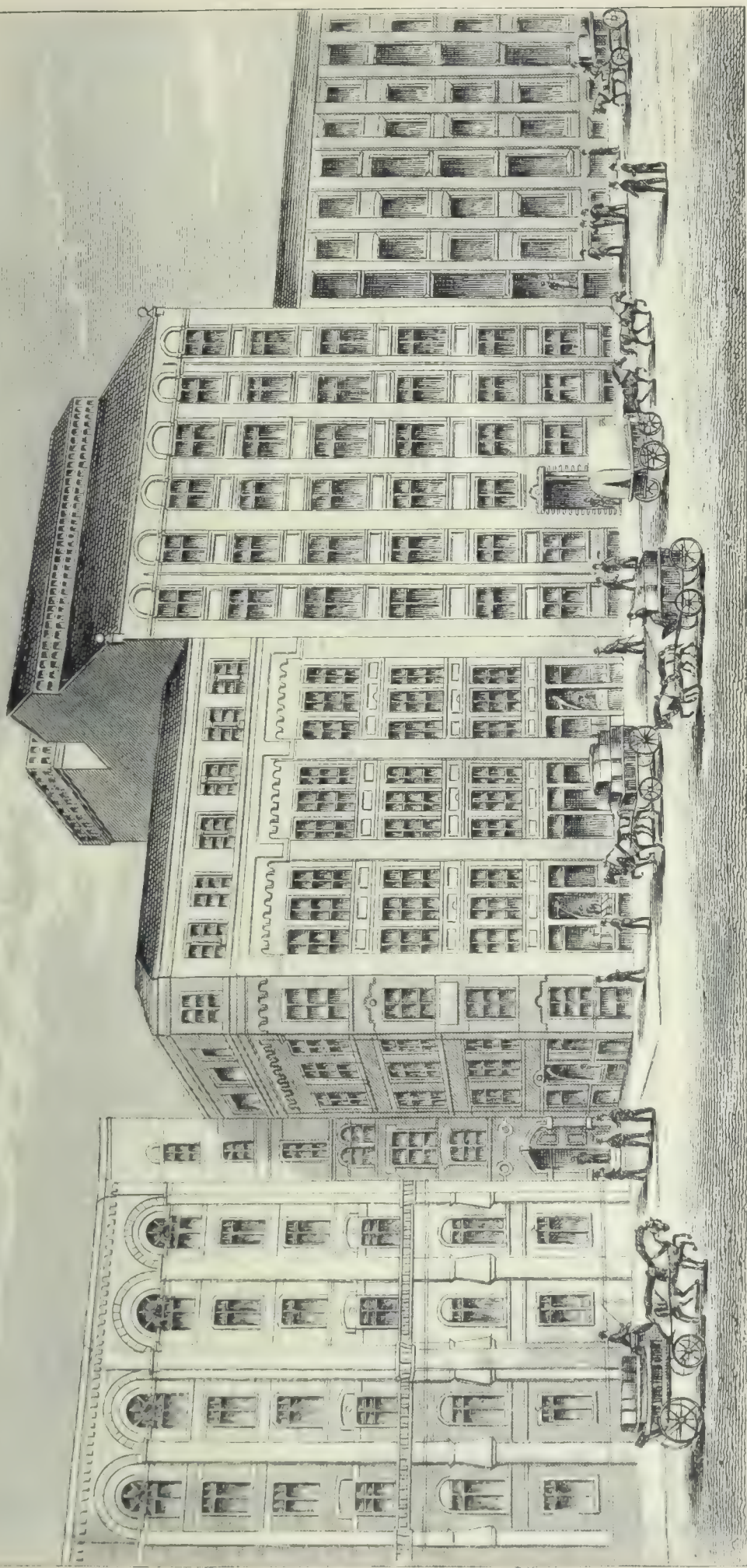
LONDON BRANCH.

GENERAL OFFICES, GROCERY AND DRAPERY DEPARTMENTS, AND CO-OPERATIVE HALL,

LEMAN STREET, E. (See pages 48, 66 to 70, 92 to 94, and 103.)



LONDON TEA DEPARTMENT.



Nº1.

OFFICES.

Nº2.

TASTING ROOMS
& DELIVERY DEPARTMENT.

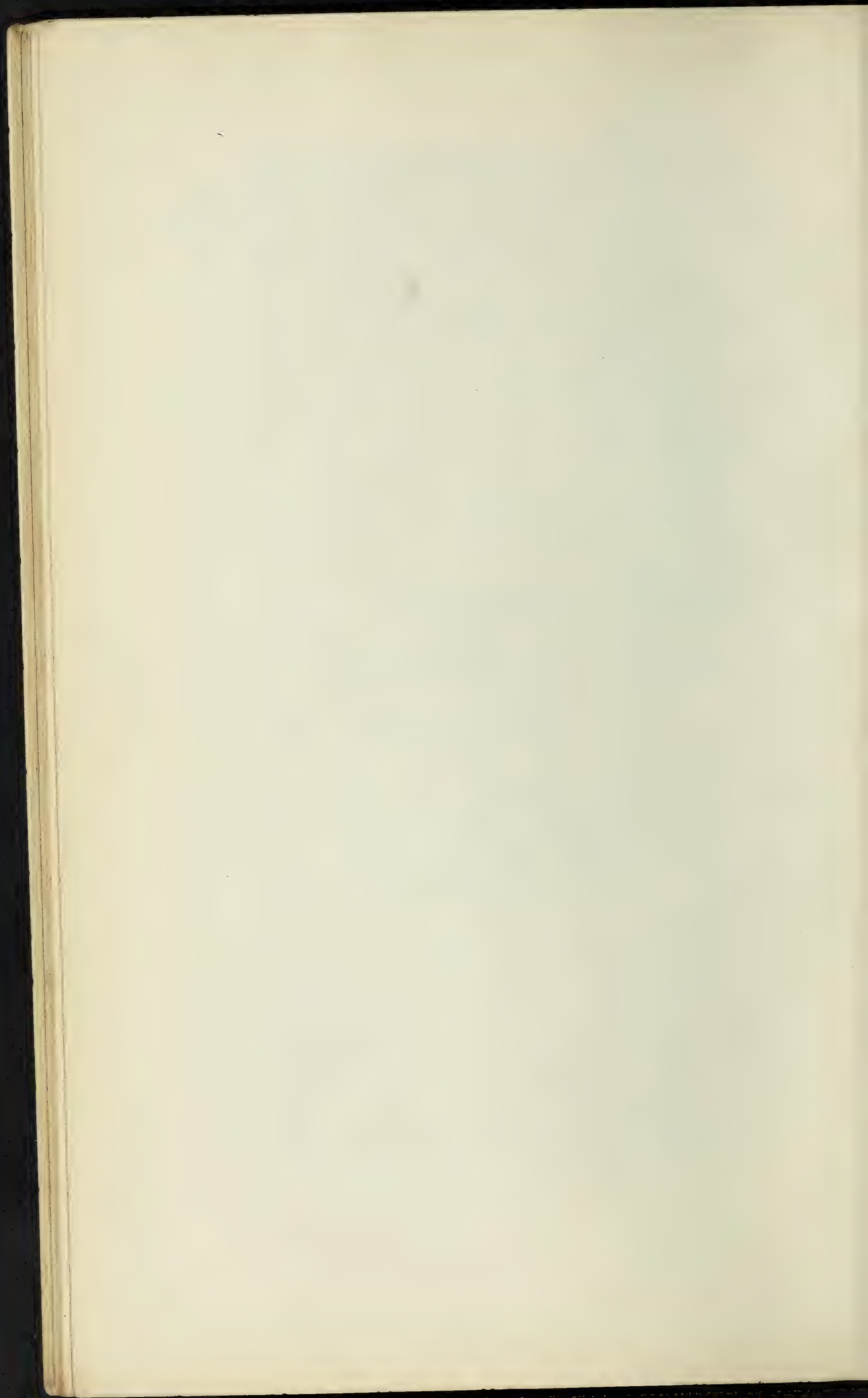
Nº3

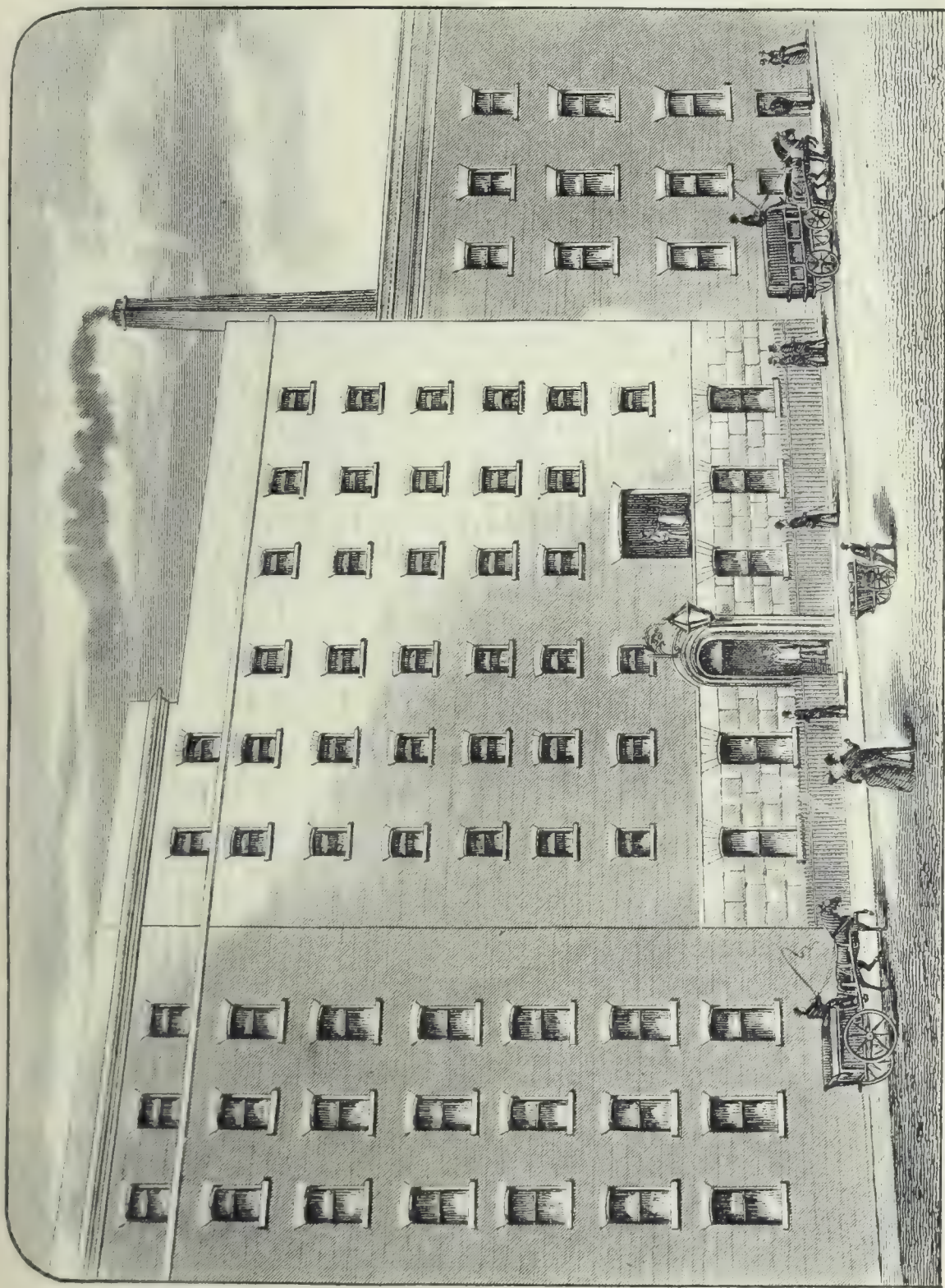
TEA BLENDING
& PACKING
DEPARTMENT.

Nº4

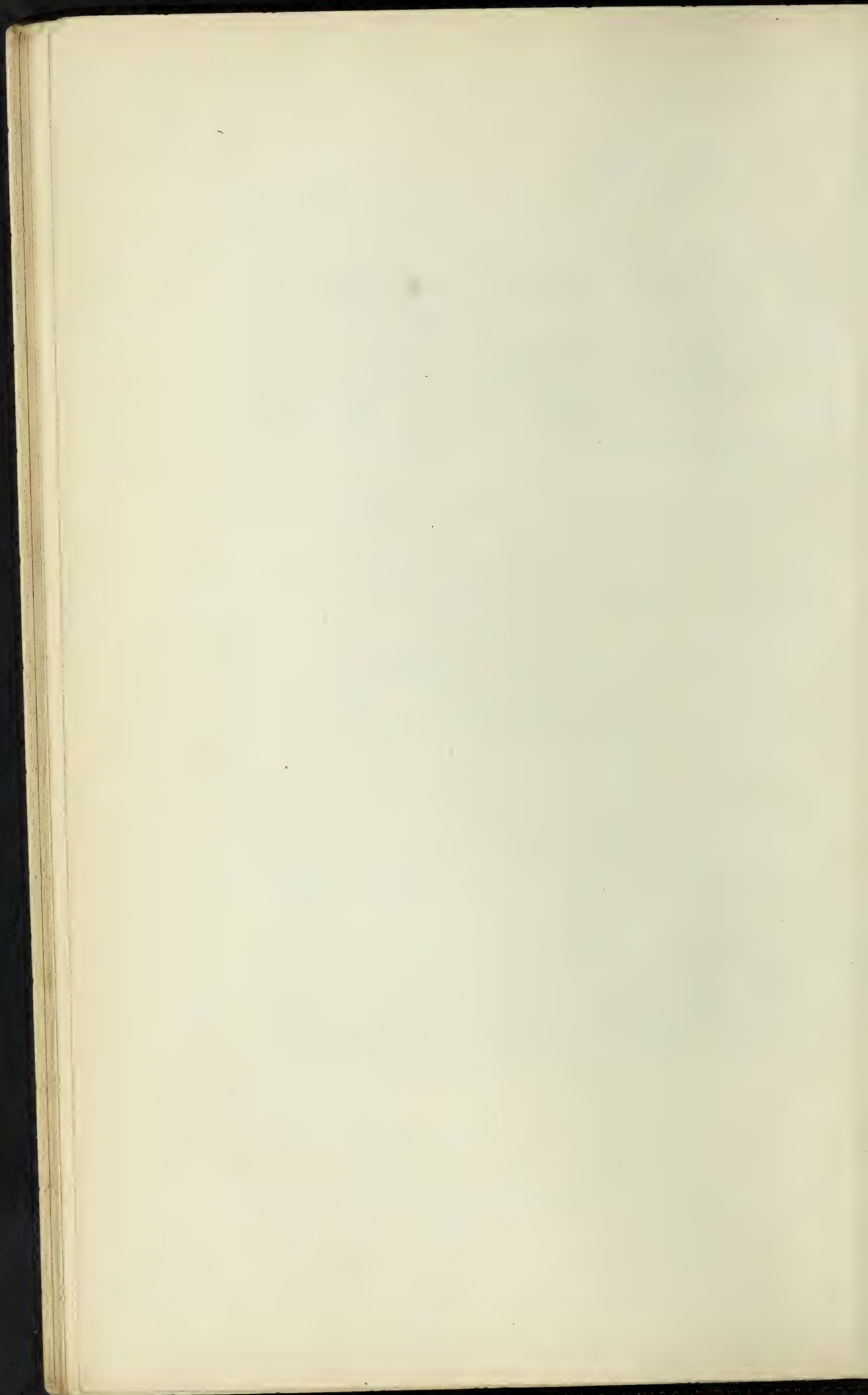
ORIGINAL IMPORTED
TEA & RECEIVING
DEPARTMENT.

(See pages 17 and 48.)





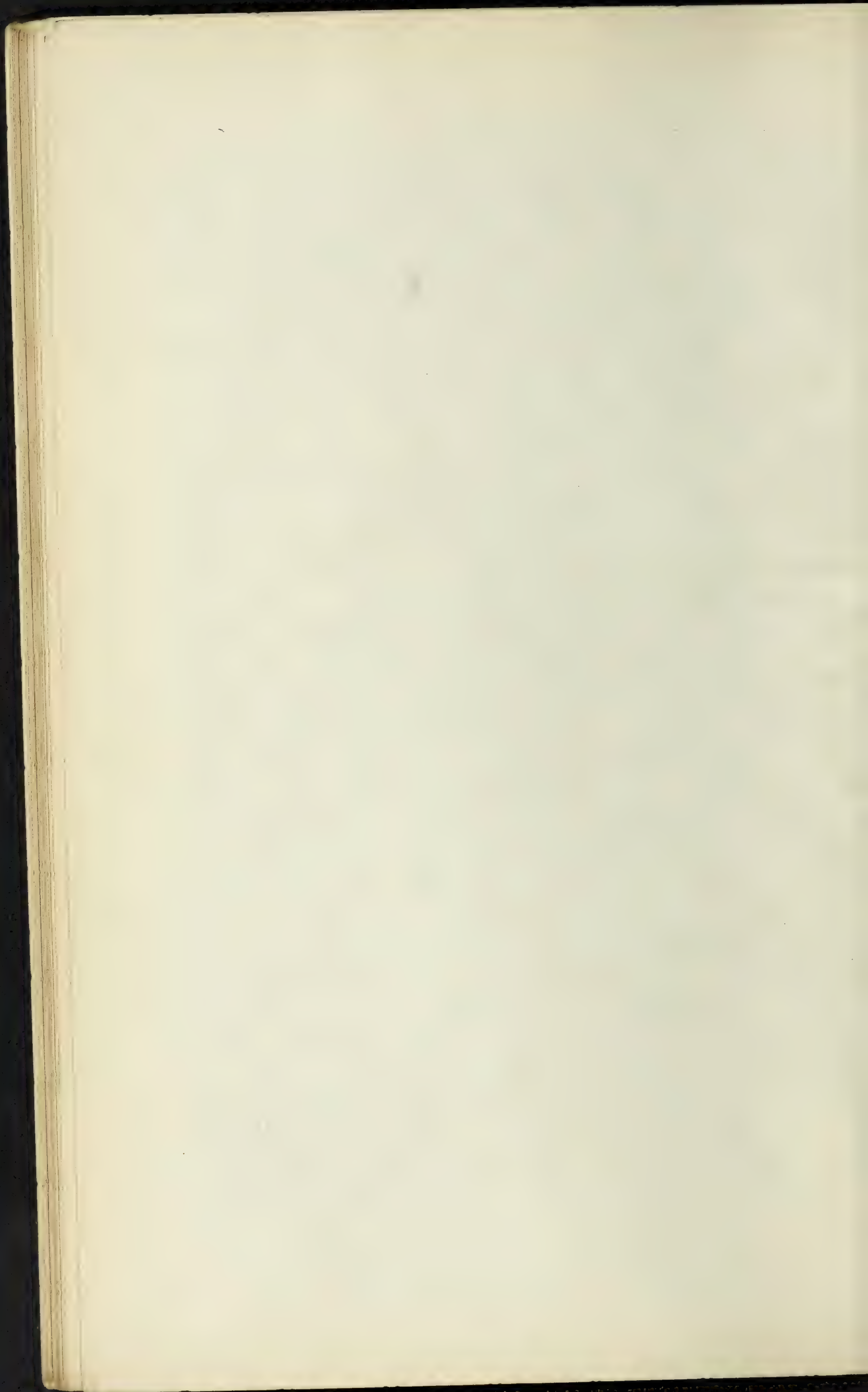
LONDON COCOA AND CHOCOLATE WORKS,
116, LEMAN STREET. (See pages 17 and 48.)



MAP OF LONDON.

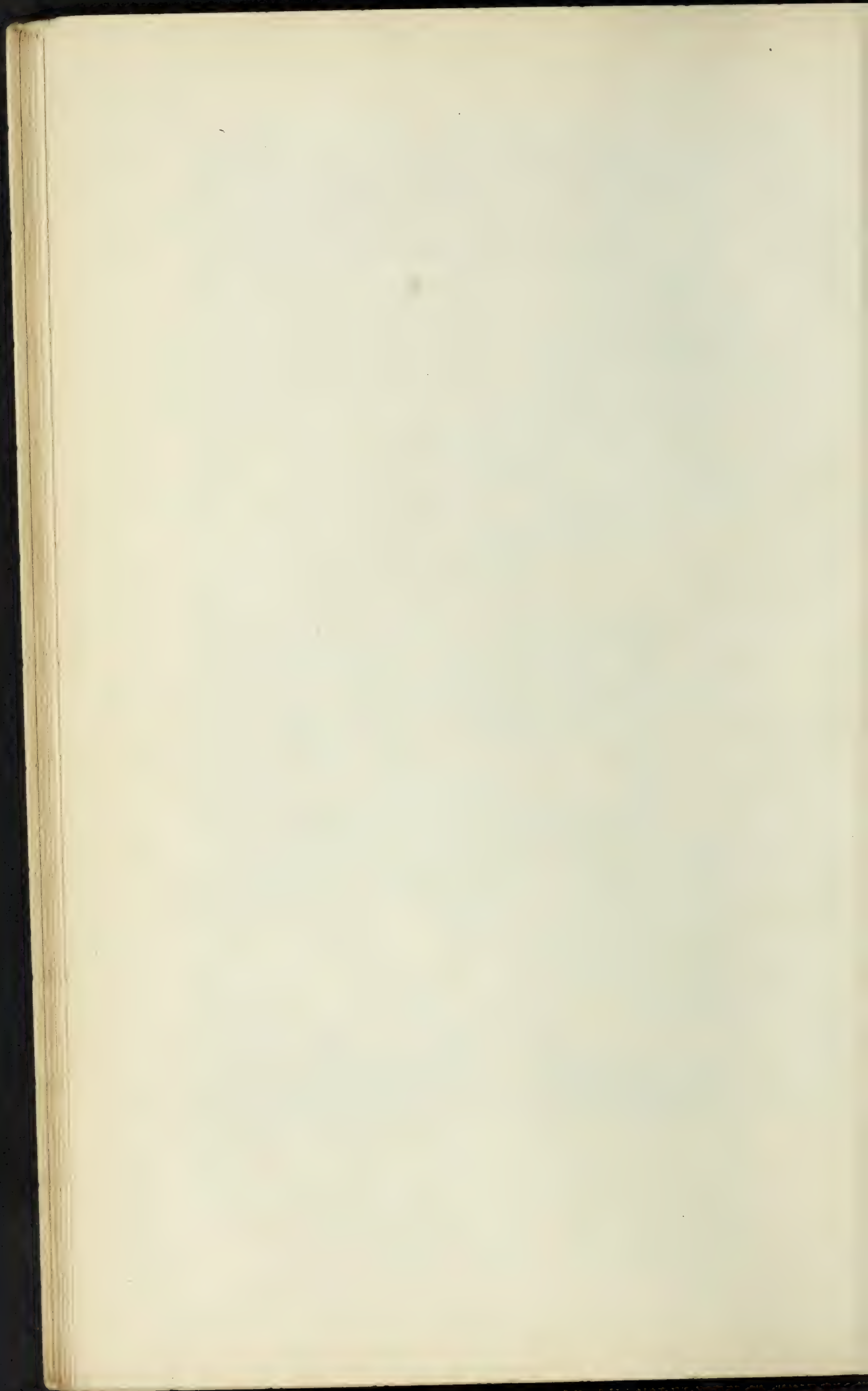
SHOWING THE LONDON BRANCH, LEMAN STREET, E., AND THE PRINCIPAL RAILWAY STATIONS.





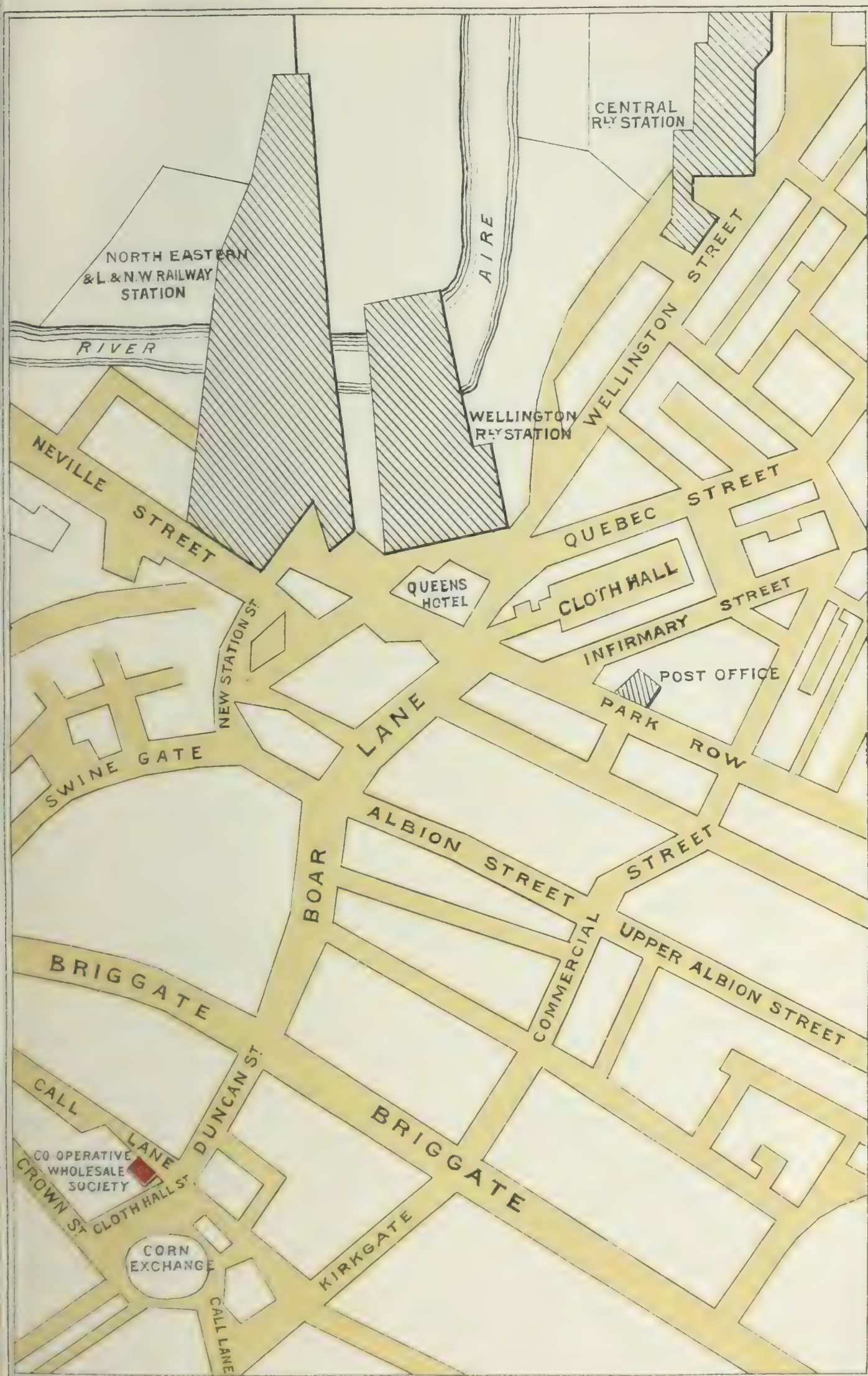


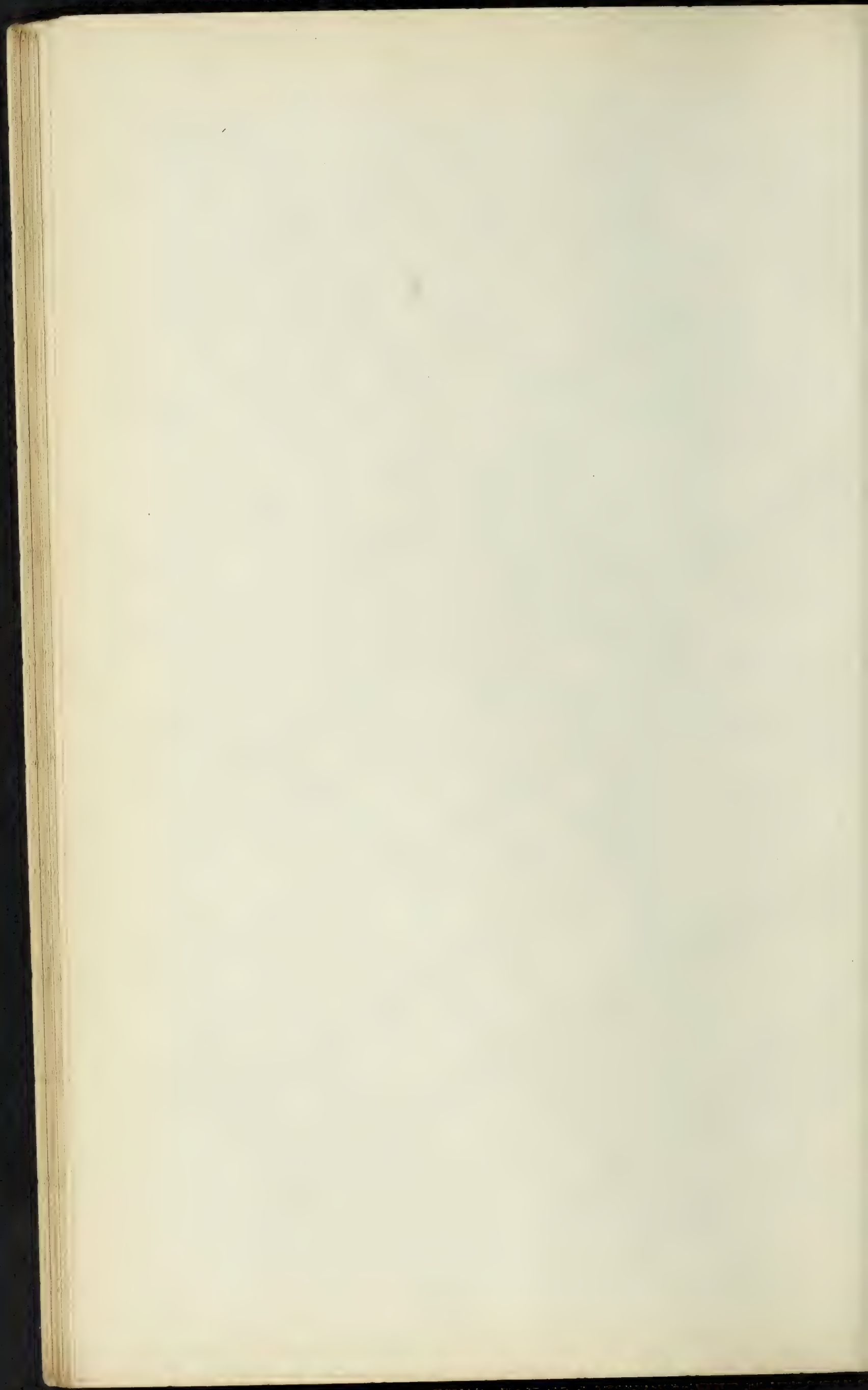
LEEDS, 83, CALL LANE.

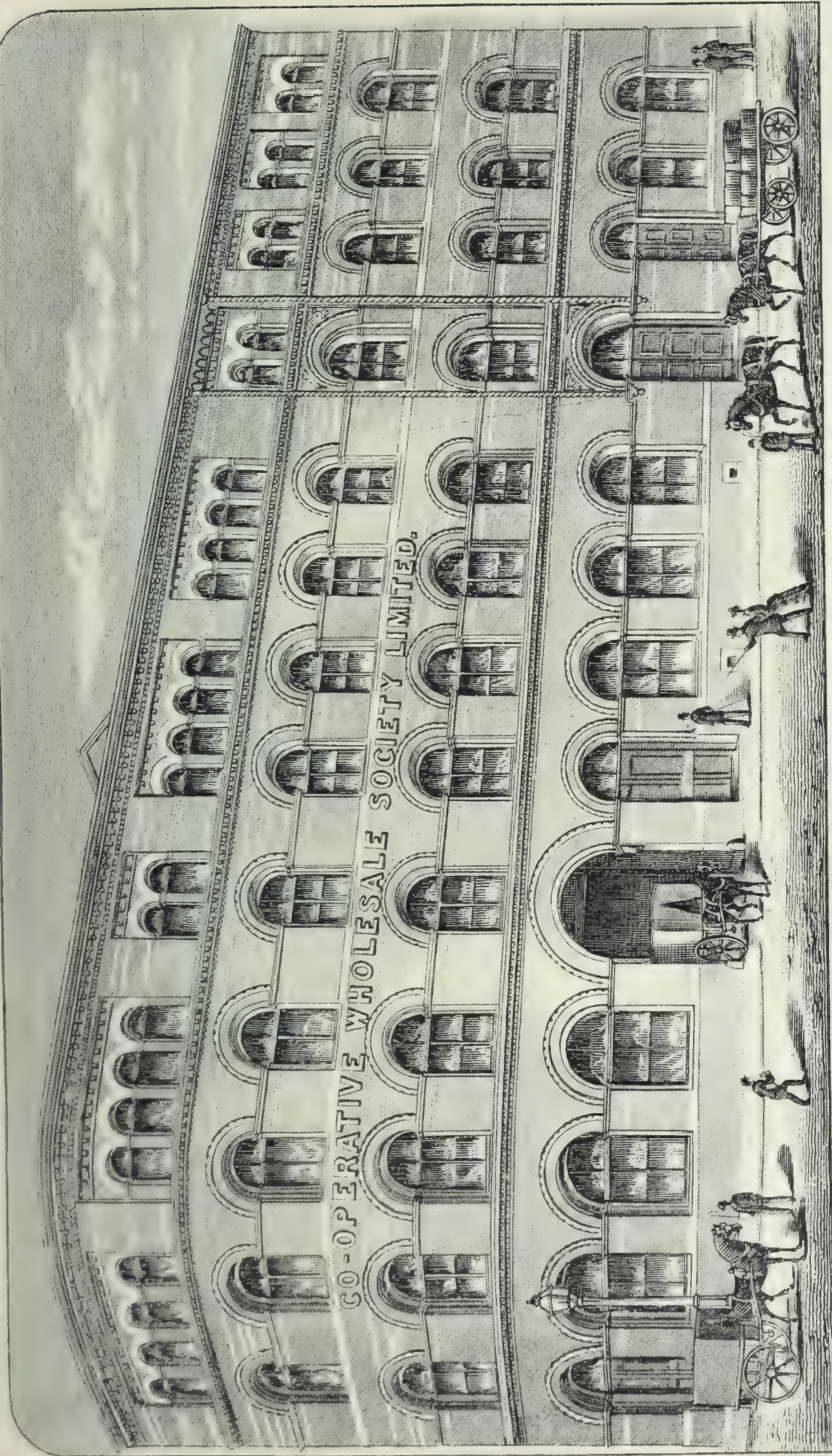


PLAN OF LEEDS.

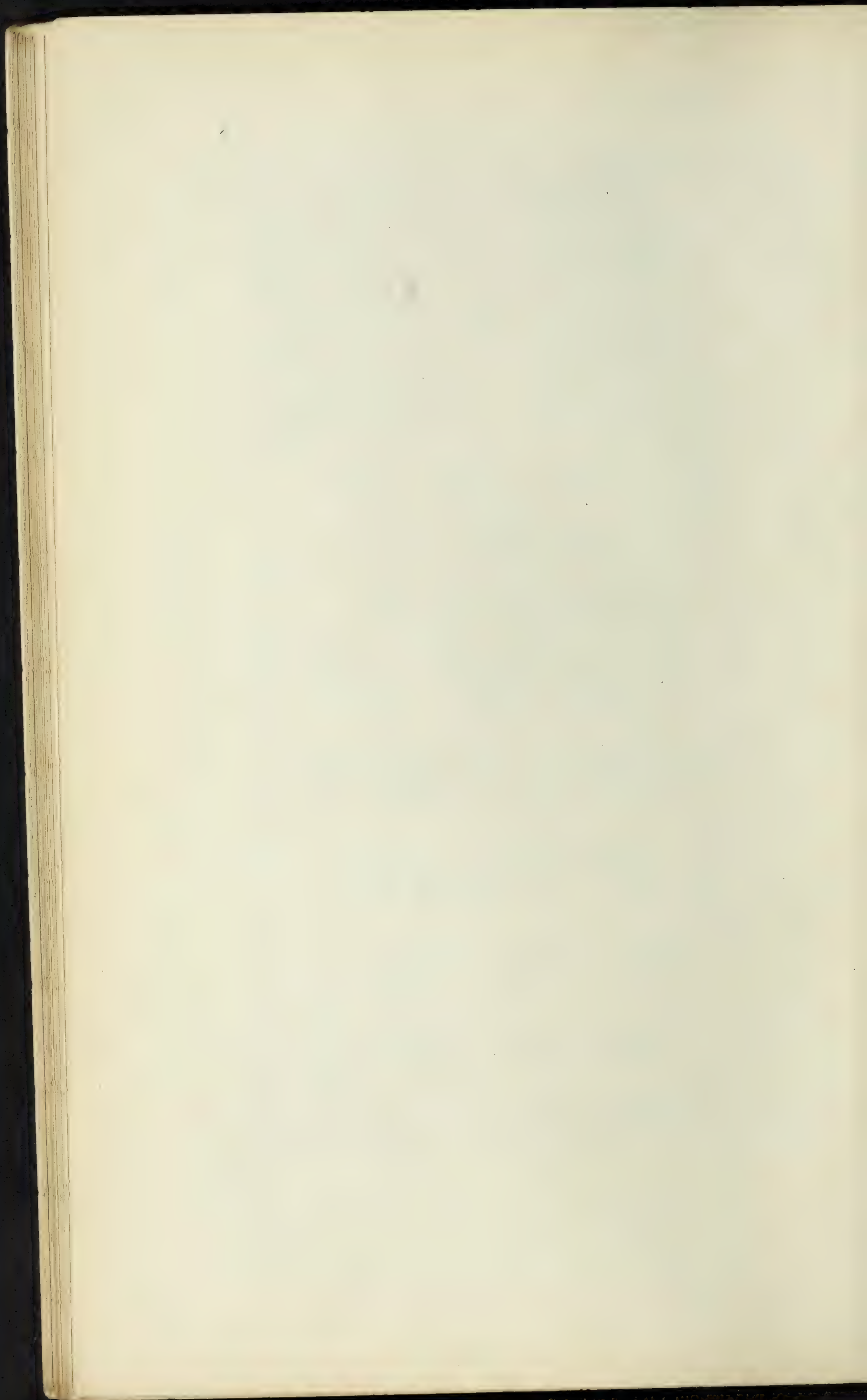
SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S SALE AND
SAMPLE ROOM, FROM THE RAILWAY STATIONS AND PRINCIPAL PLACES.







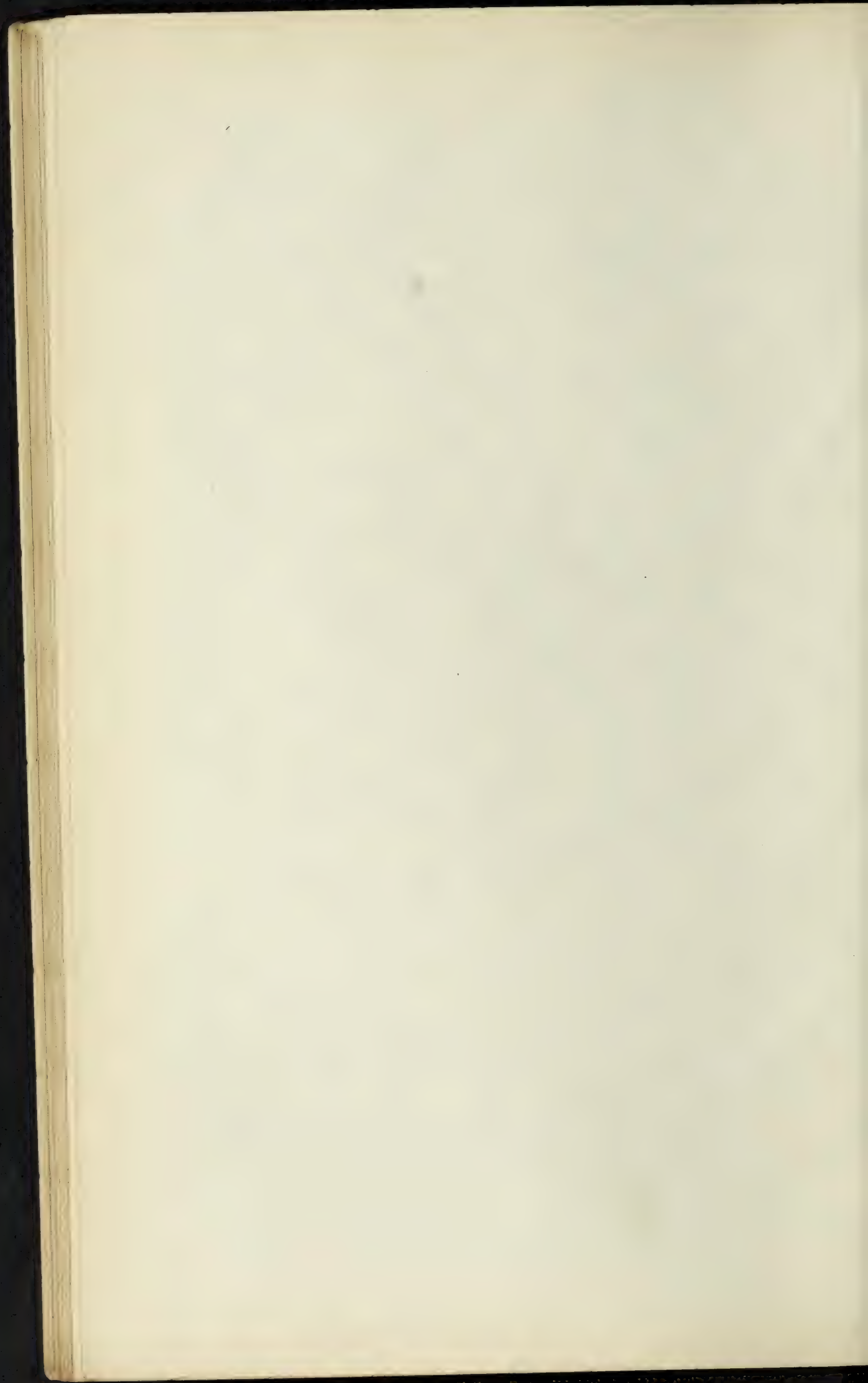
BRISTOL DEPÔT.
CHRISTMAS STREET. SEE PAGE 48.

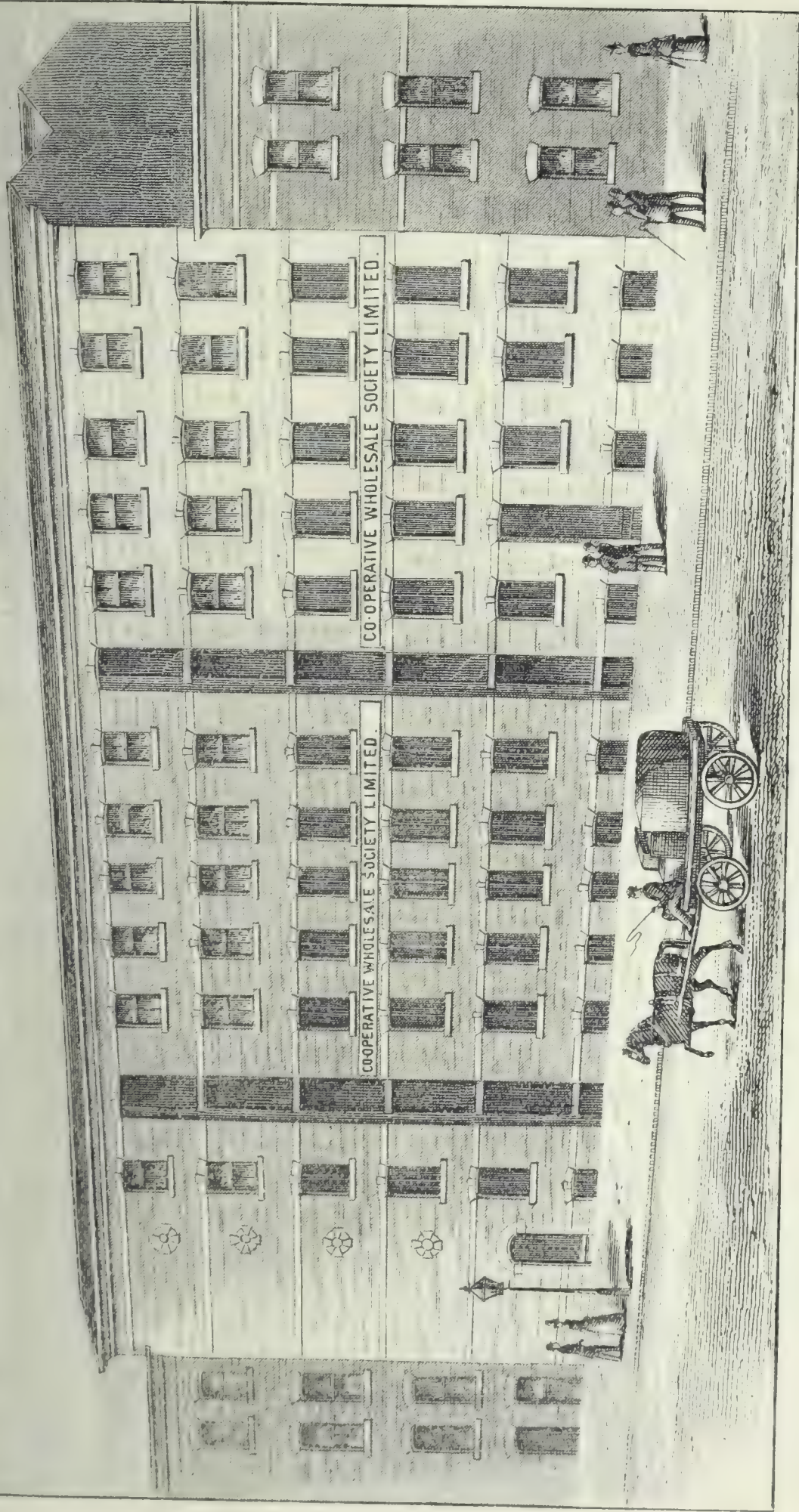


PLAN OF BRISTOL.

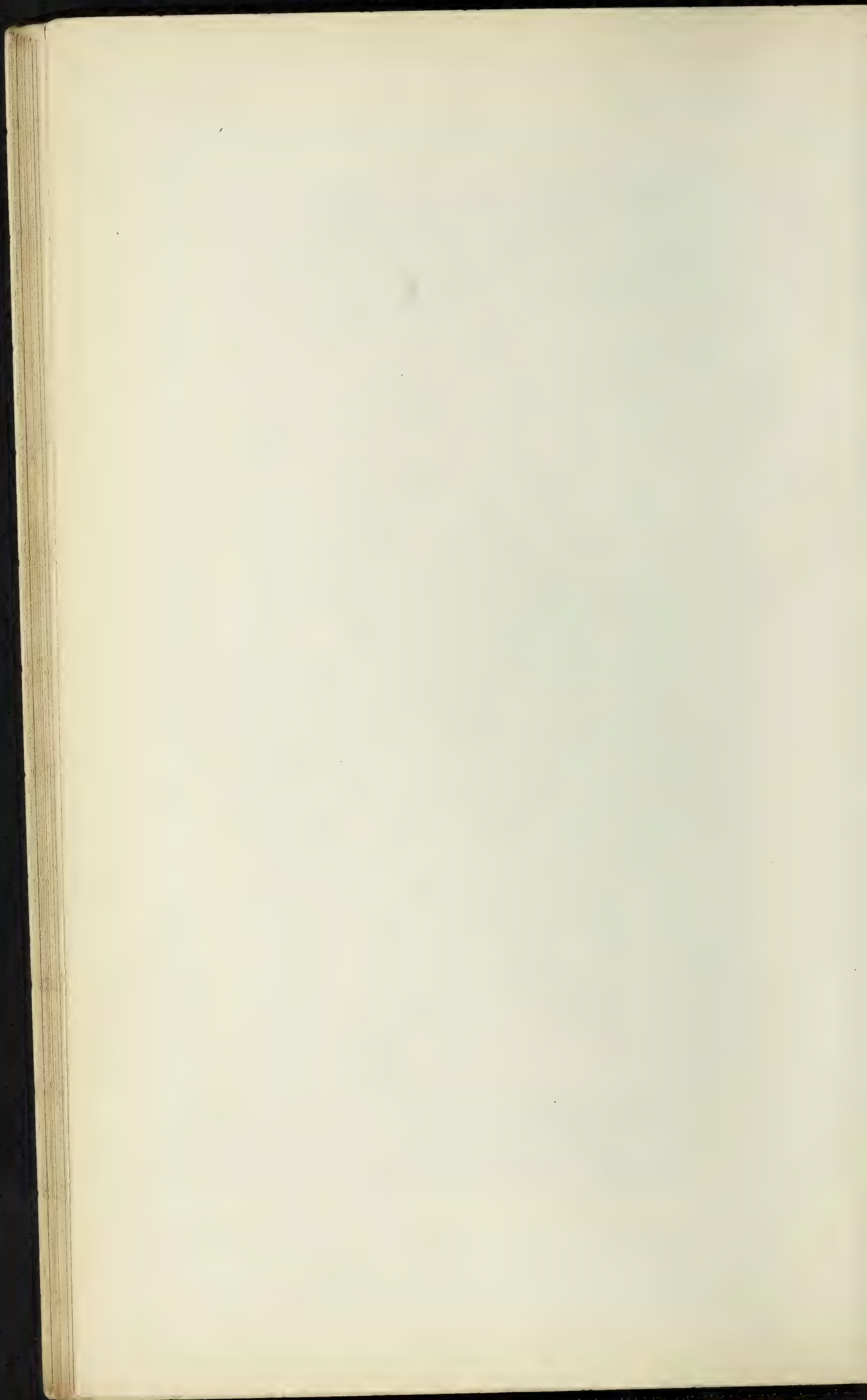
SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S BRISTOL DEPOT, FROM THE RAILWAY STATIONS AND PRINCIPAL PLACES.

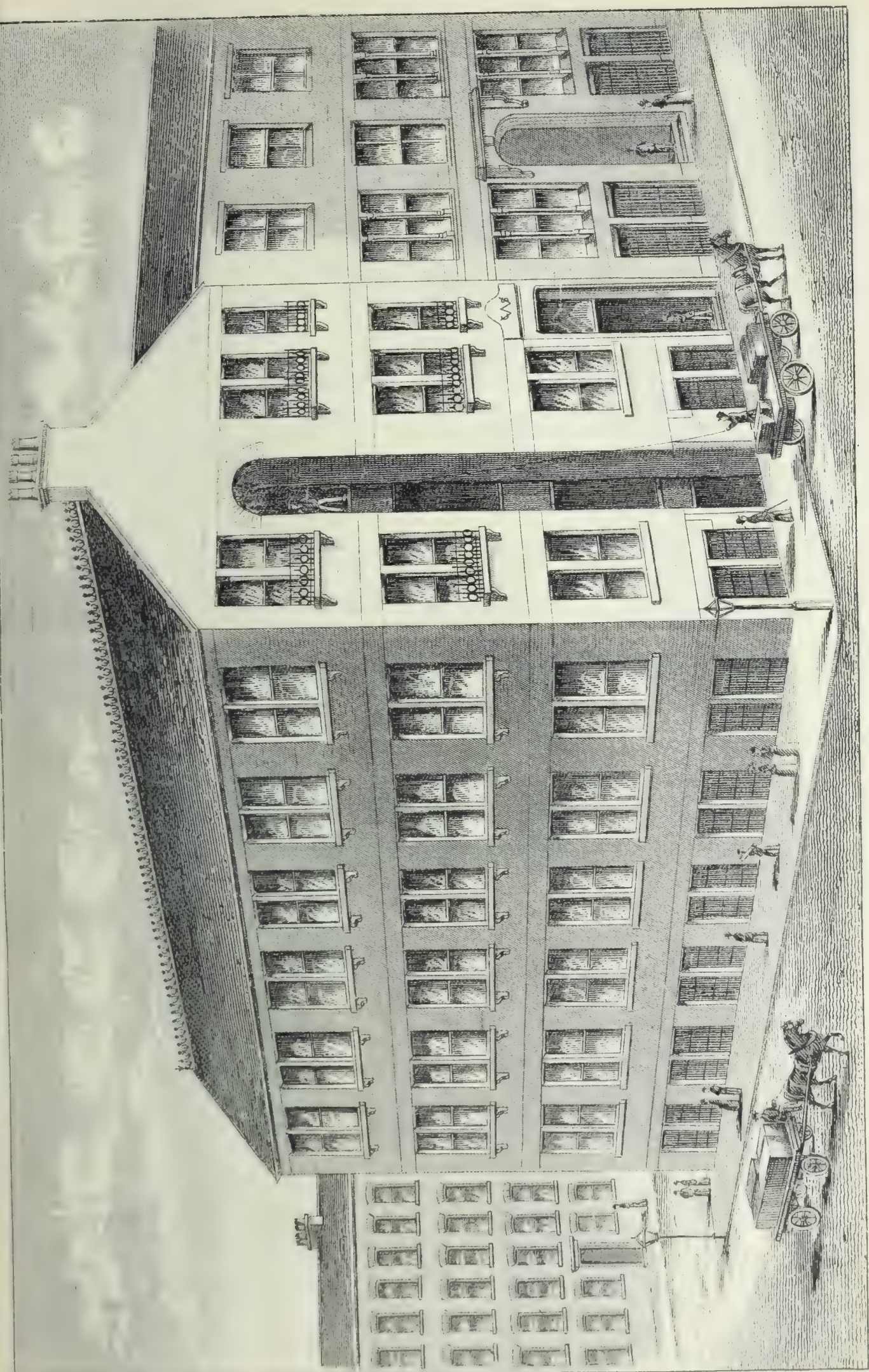




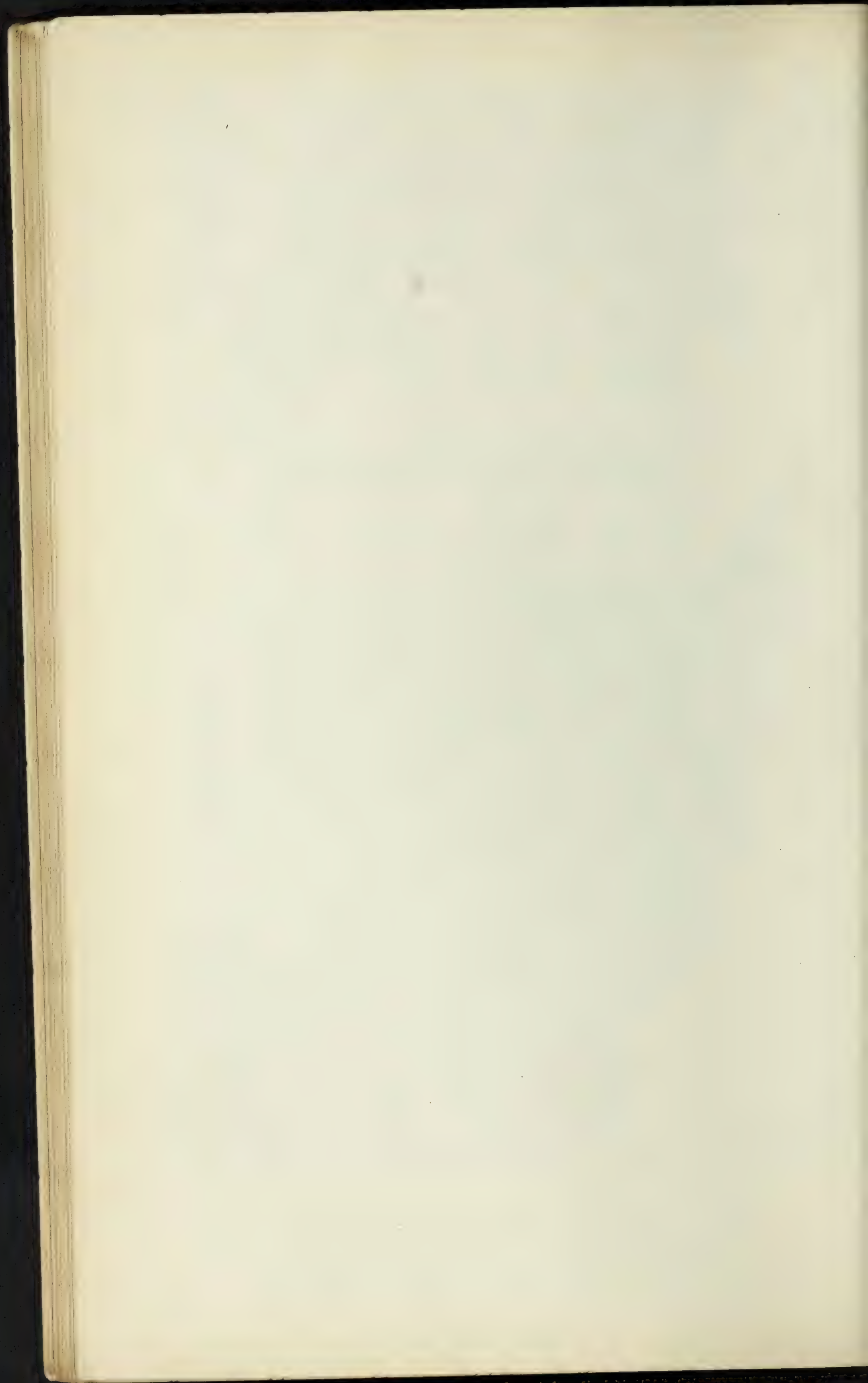


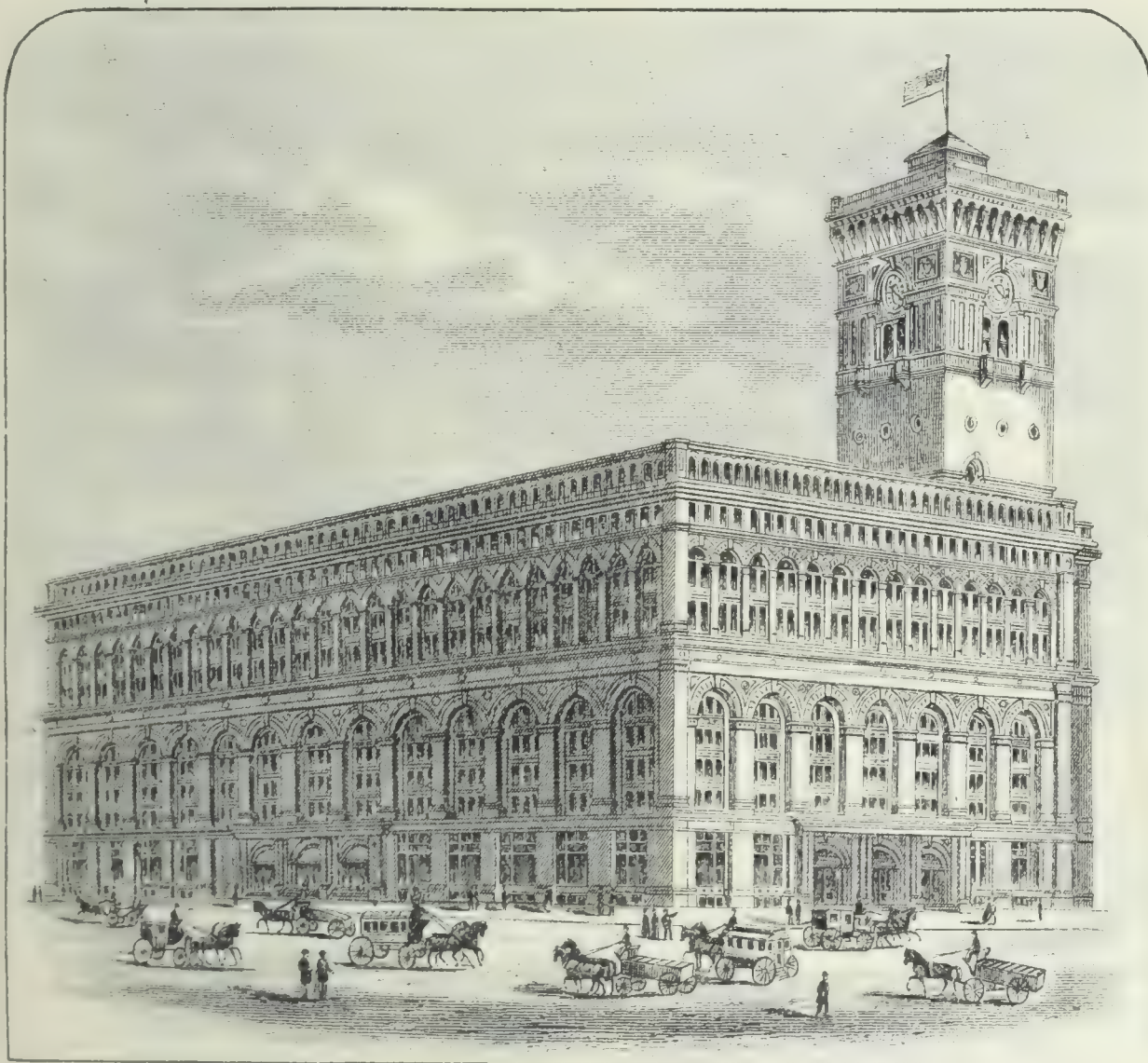
LIVERPOOL WAREHOUSES, TEMPLE LANE.
OFFICE: 7, VICTORIA STREET.



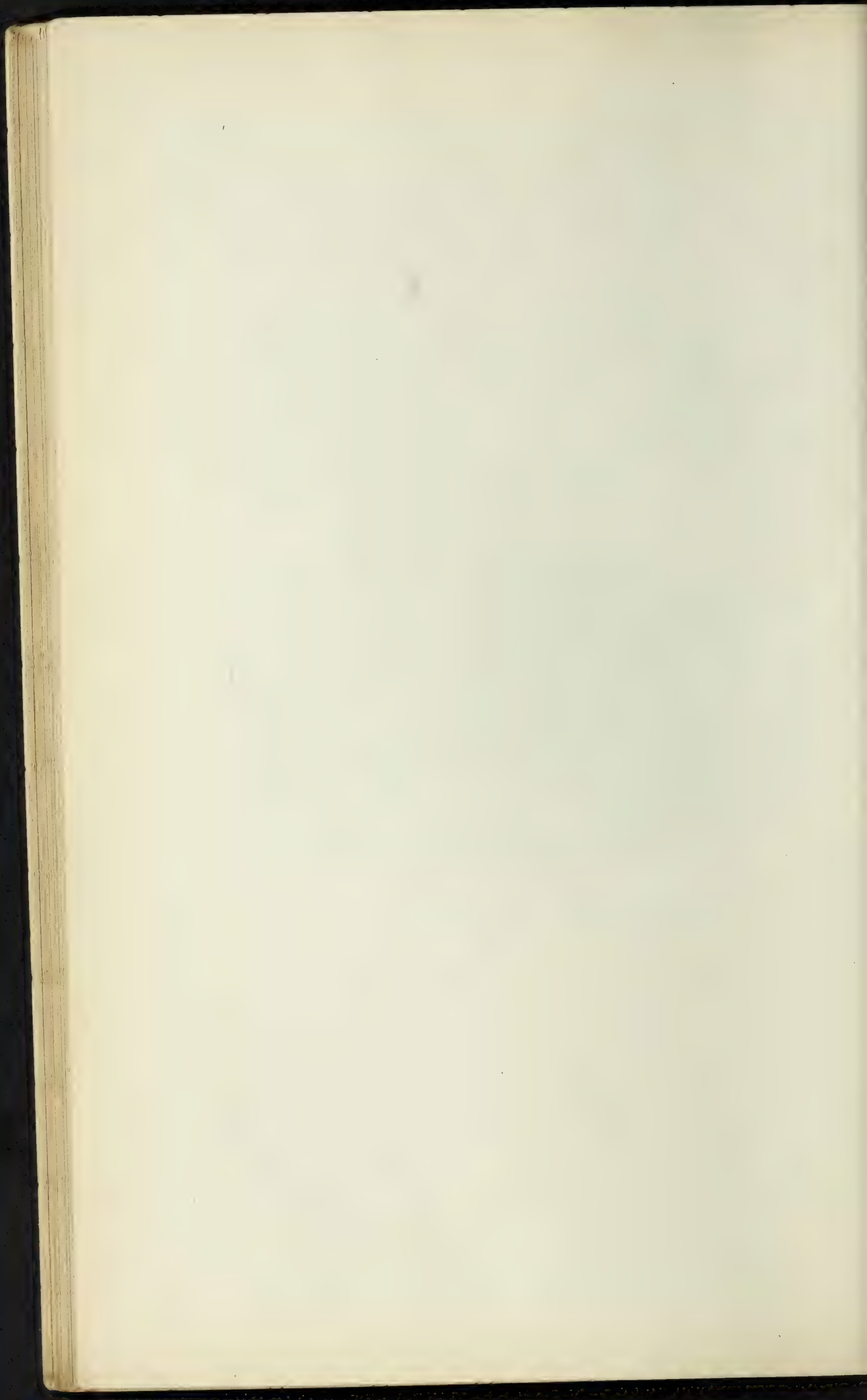


LIVERPOOL WAREHOUSE, CUMBERLAND STREET.



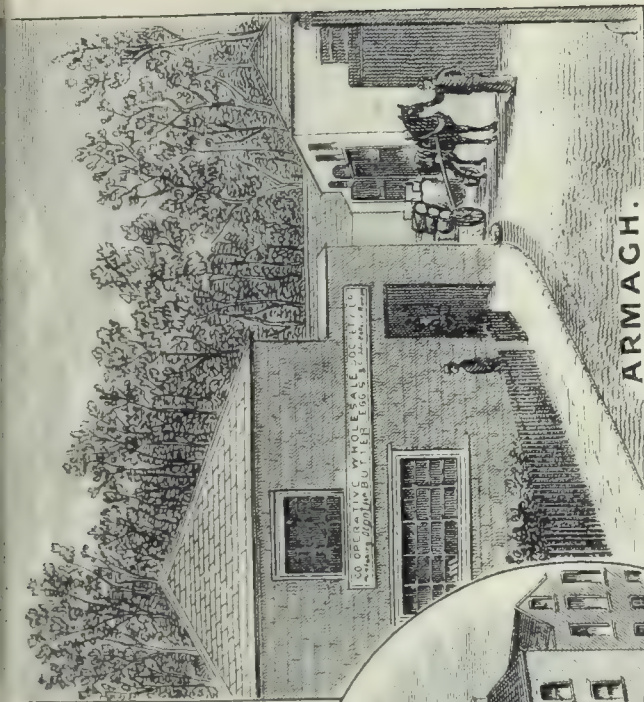


NEW YORK PRODUCE EXCHANGE, BROADWAY, NEW YORK.
IN WHICH THE SOCIETY'S OFFICES ARE SITUATE.

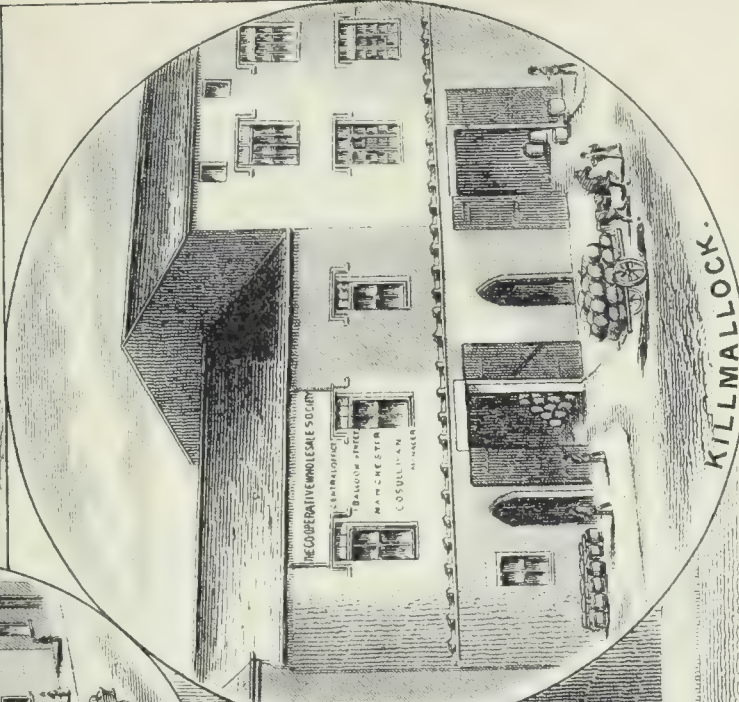


THE
CO-OPERATIVE WHOLESALE SOCIETY.
LIMITED.

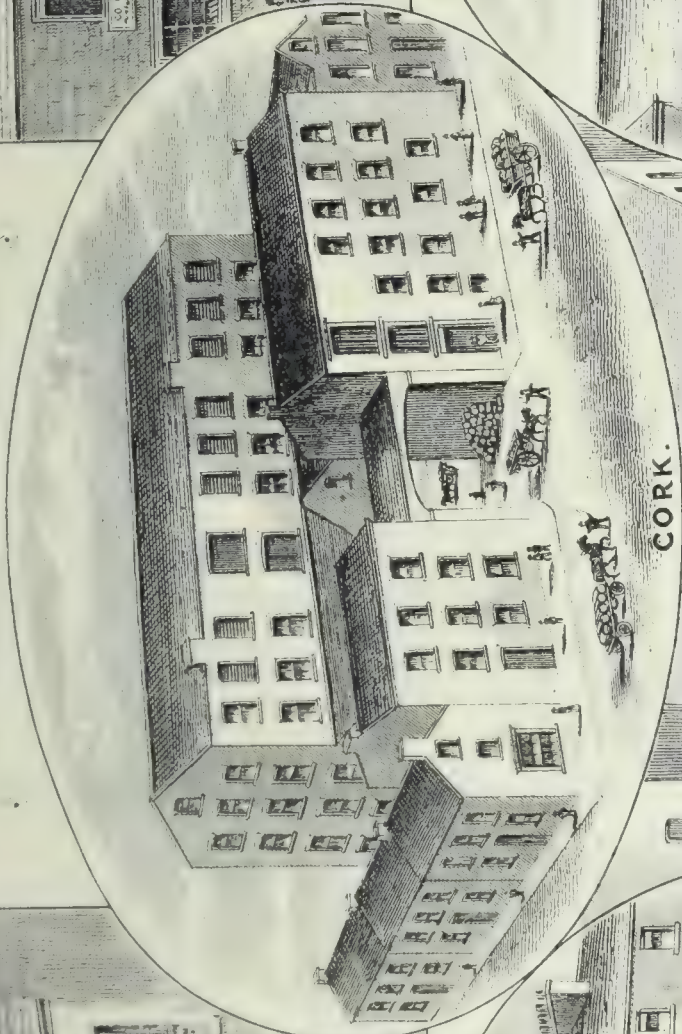
BRANCHES IN IRELAND.



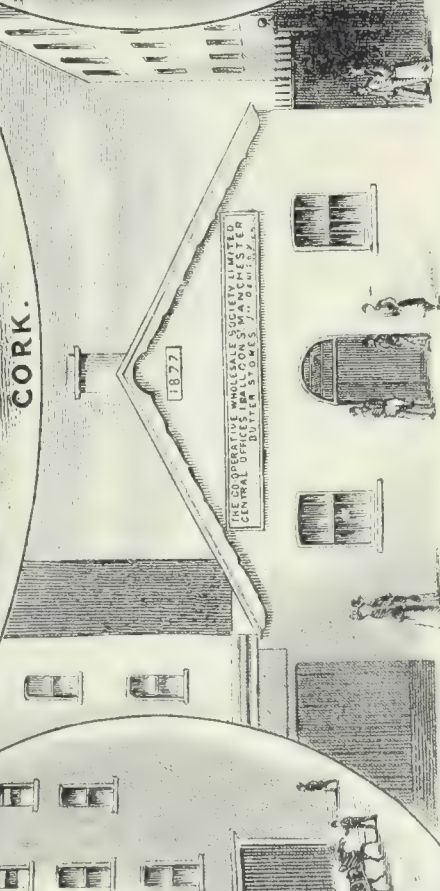
ARMAGH.



KILLMALLOCK.



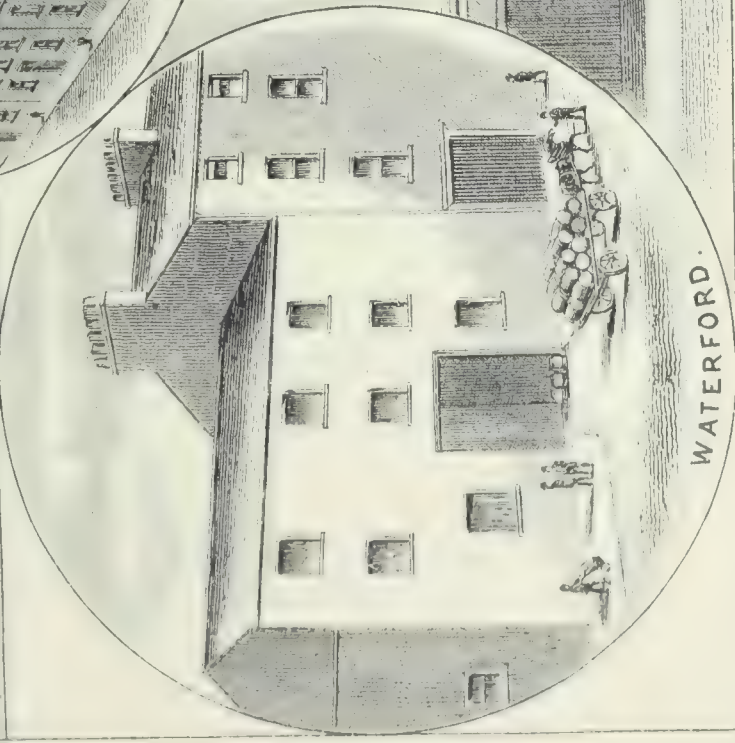
CORK.



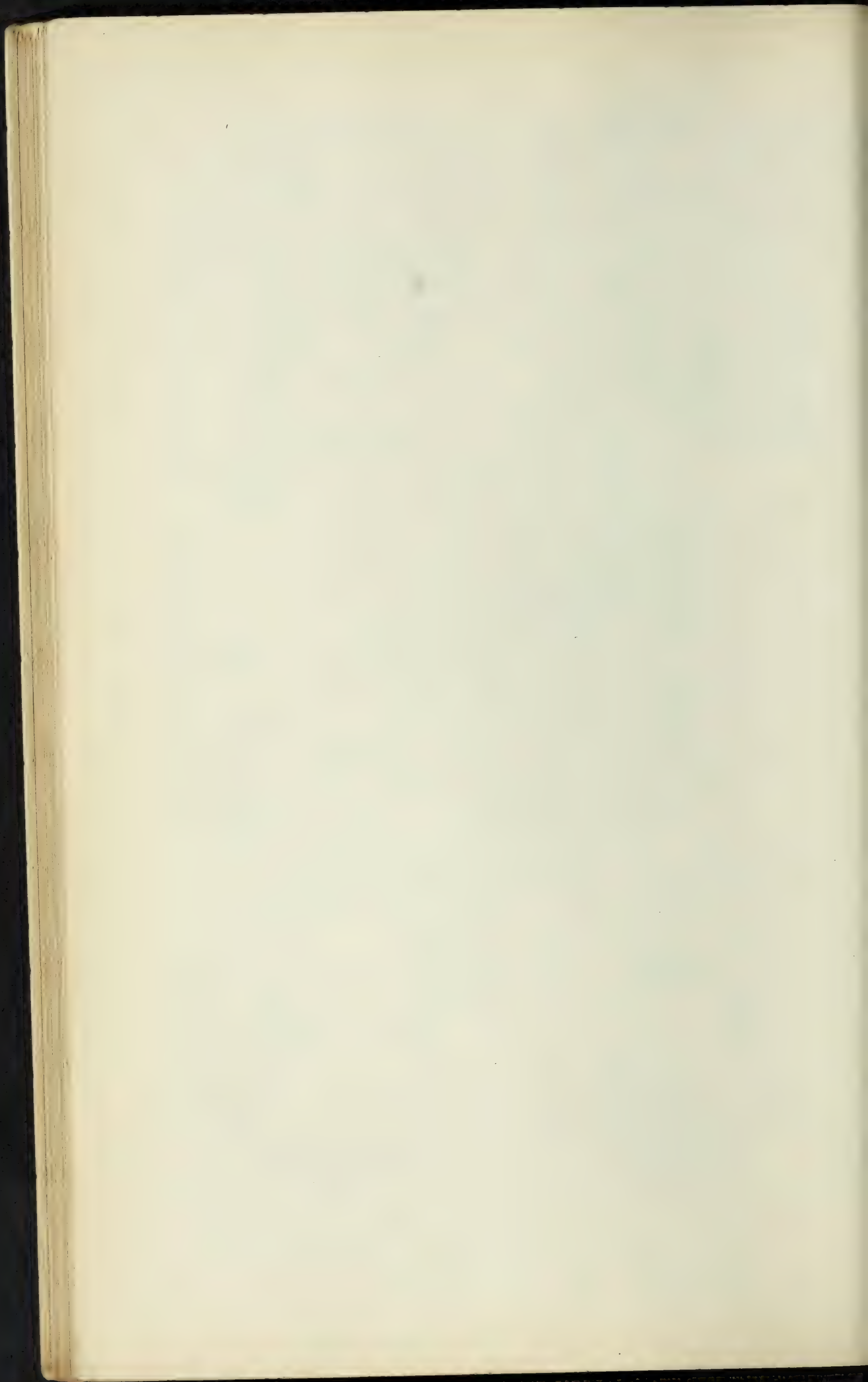
TRALEE.



LIMERICK.

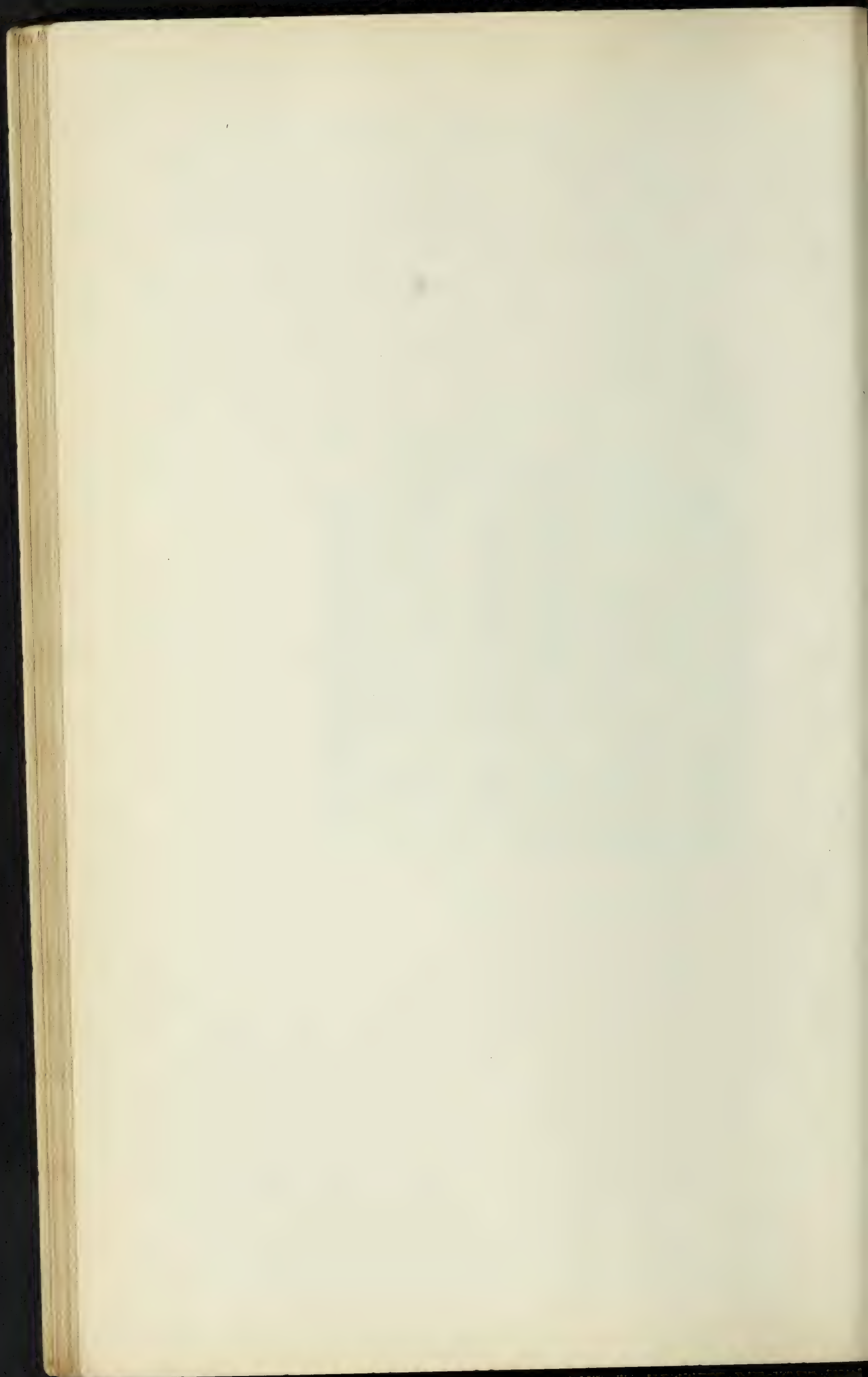


WATERFORD.



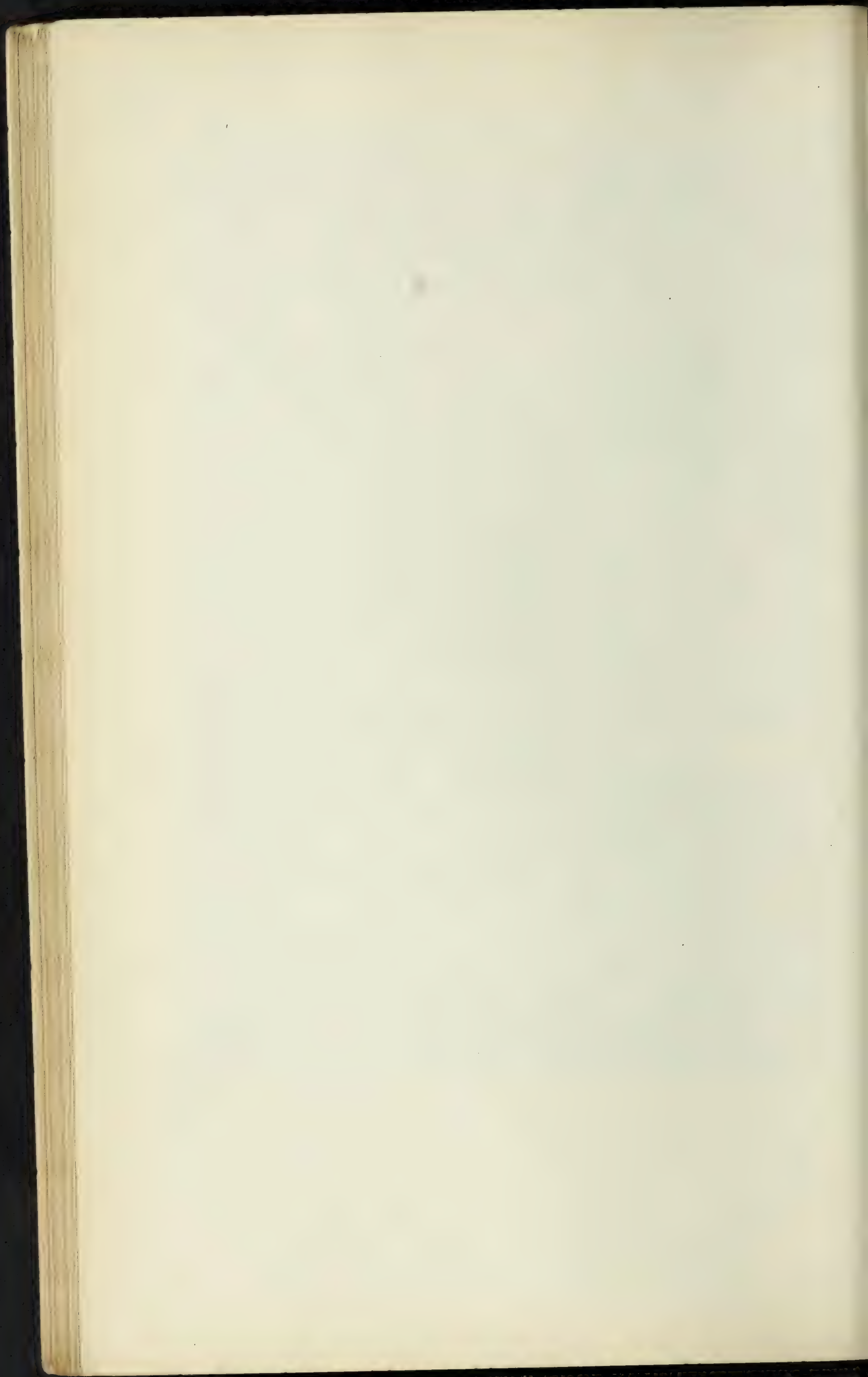


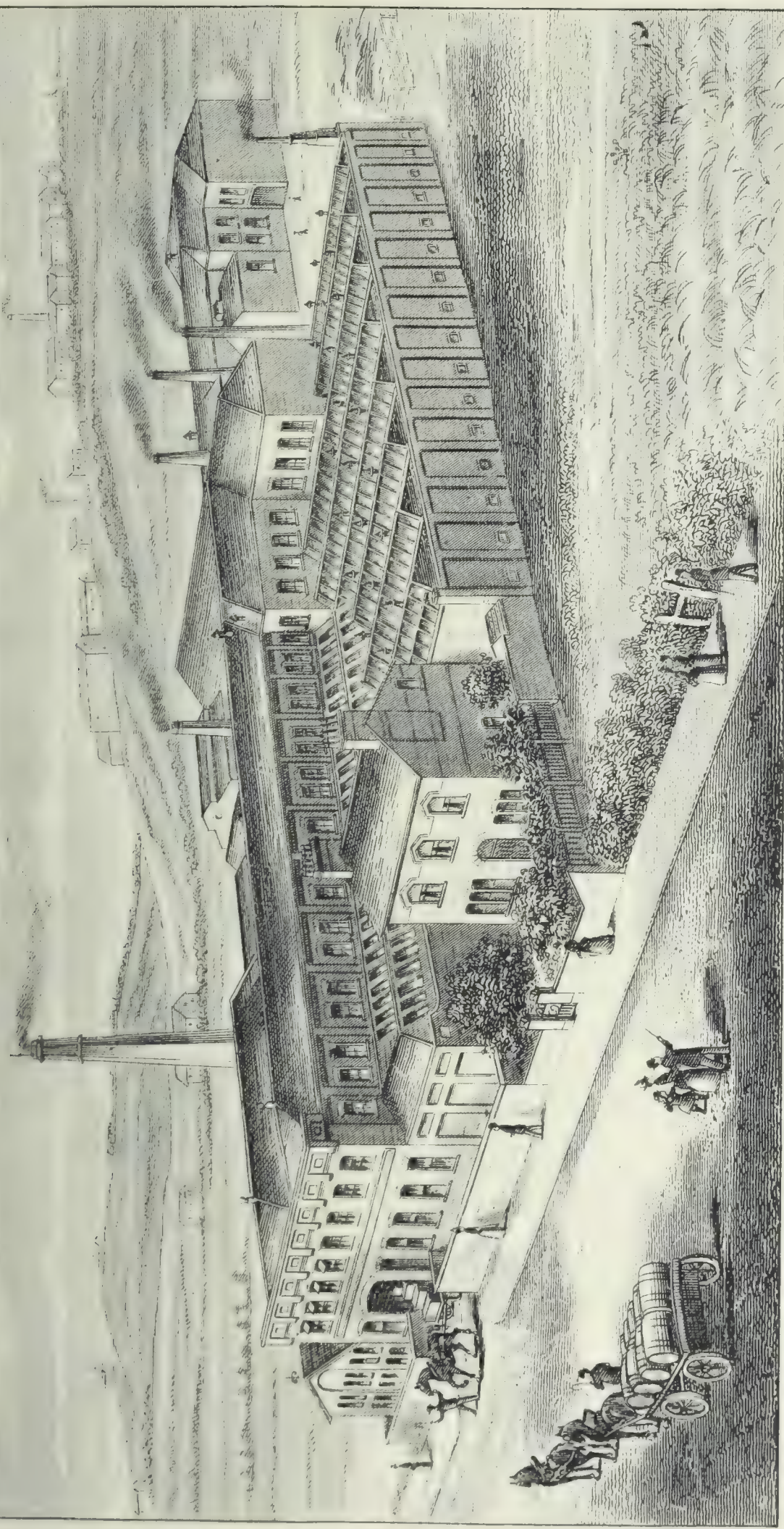
COPENHAGEN BRANCH,
HAVNEGADE, 41.





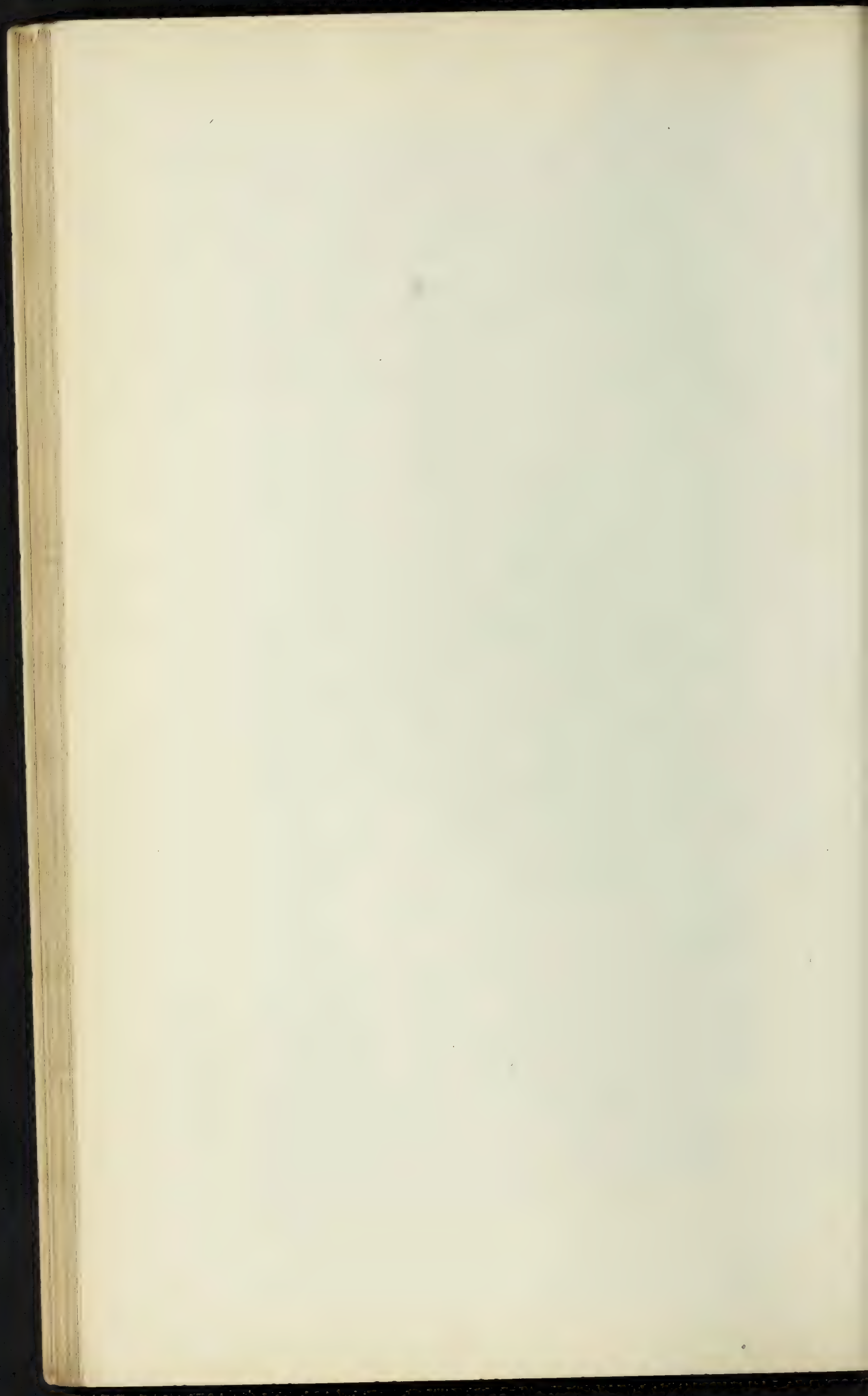
HAMBURG BRANCH.

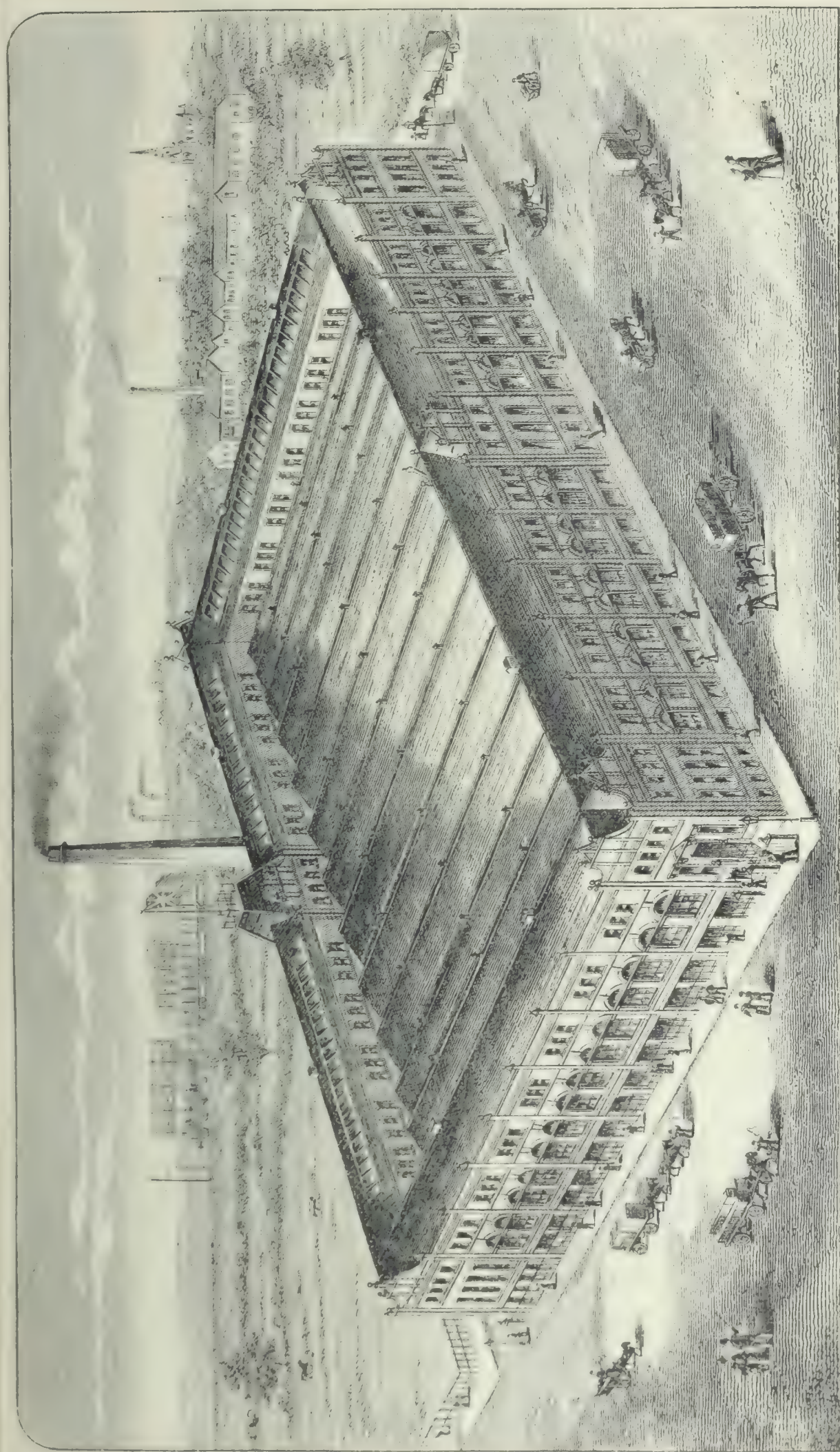




CRUMPSALL WORKS.

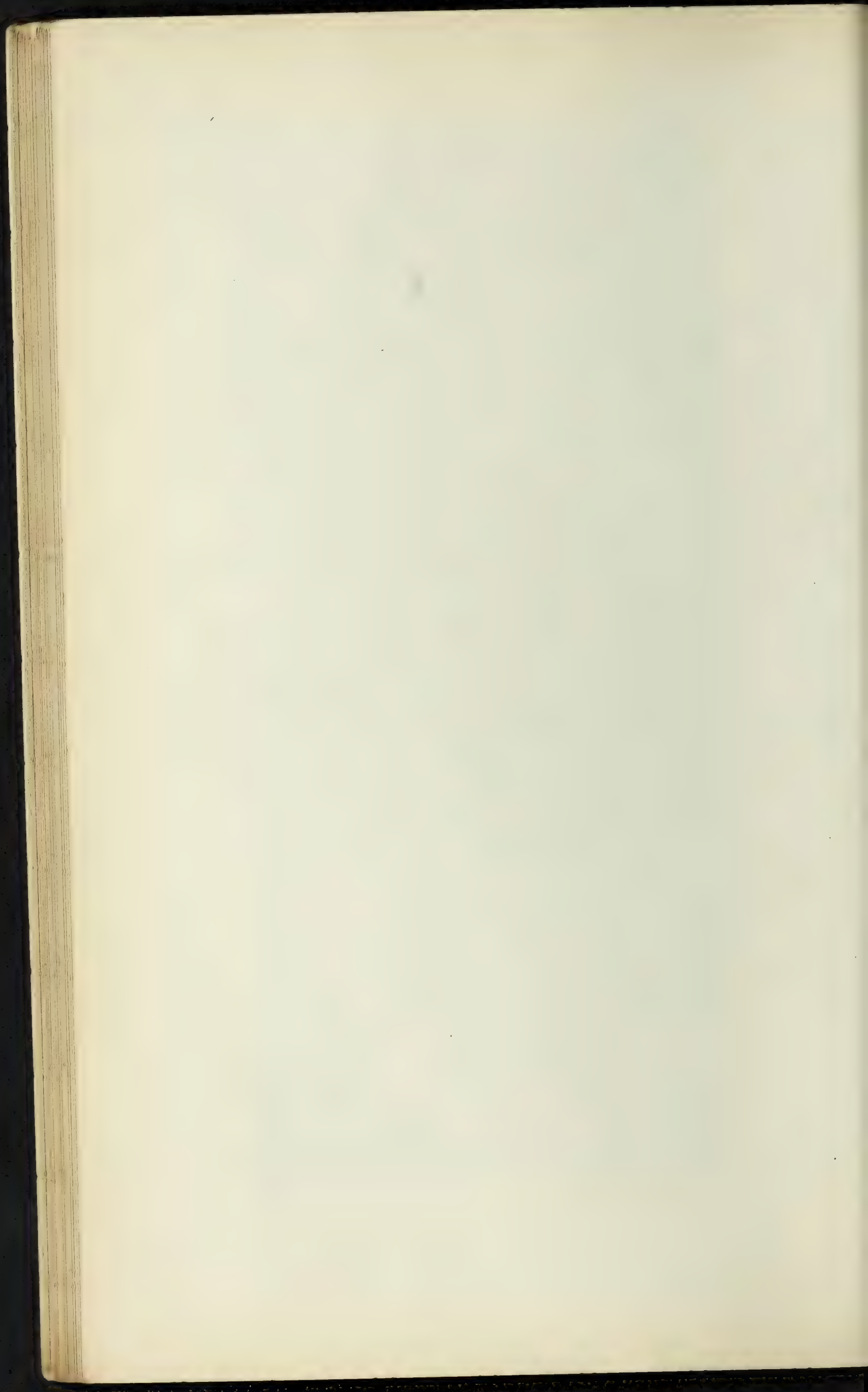
SEE PAGES 27, 48, 74, AND 94.

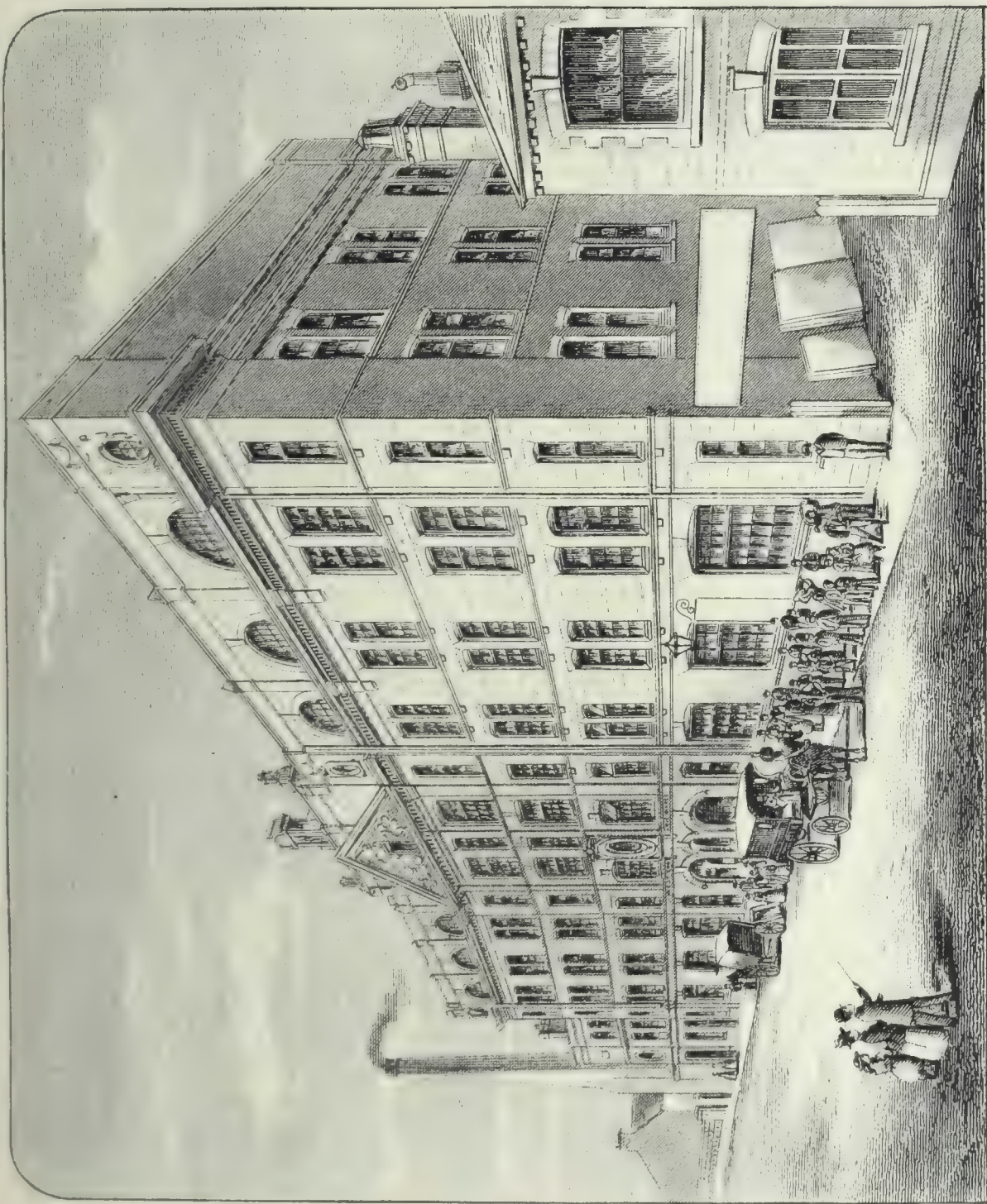




WHEATSHEAF BOOT AND SHOE WORKS, LEICESTER.

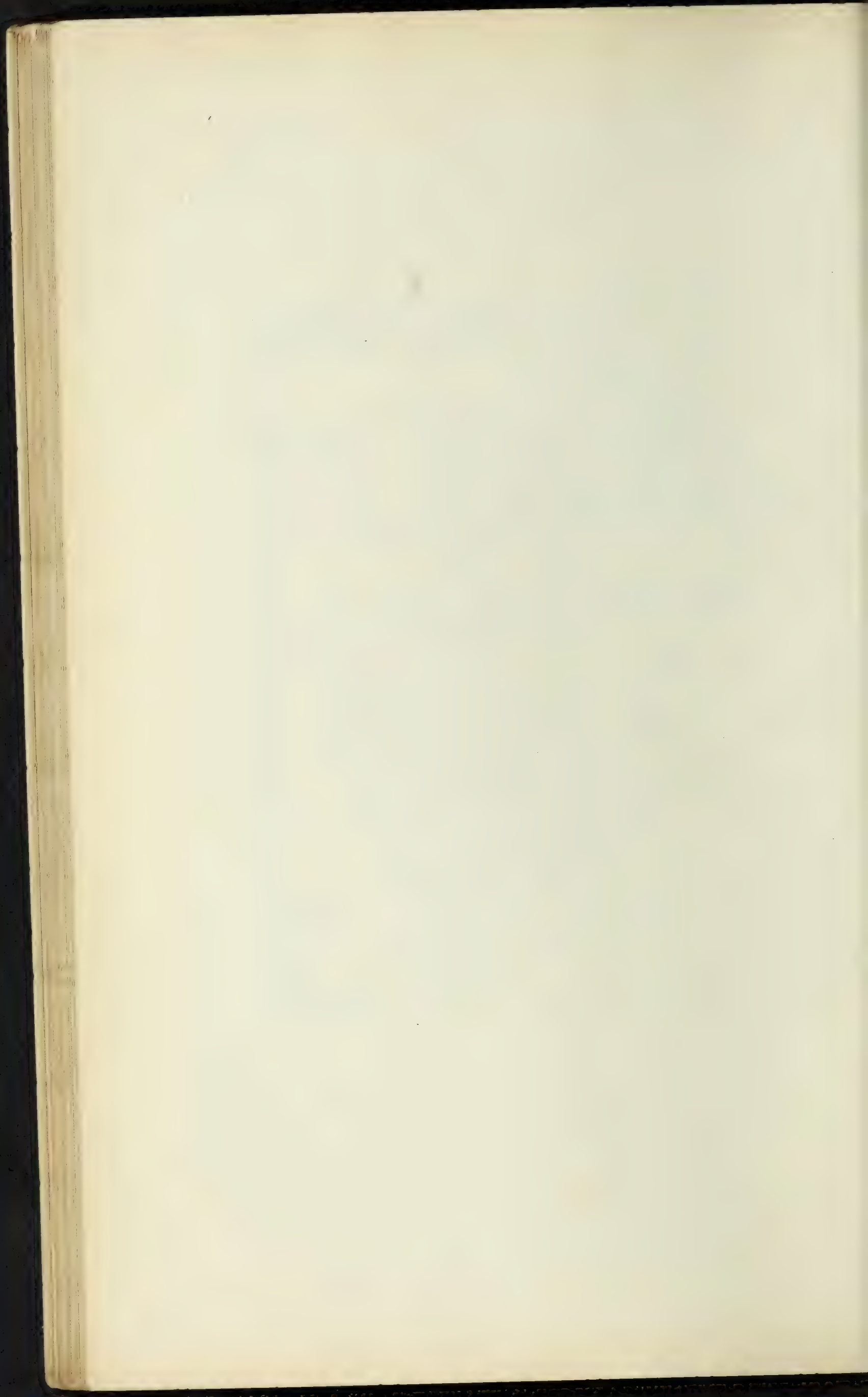
See pages 29, 48, 76 to 79, and 95.





LEICESTER BOOT AND SHOE WORKS.

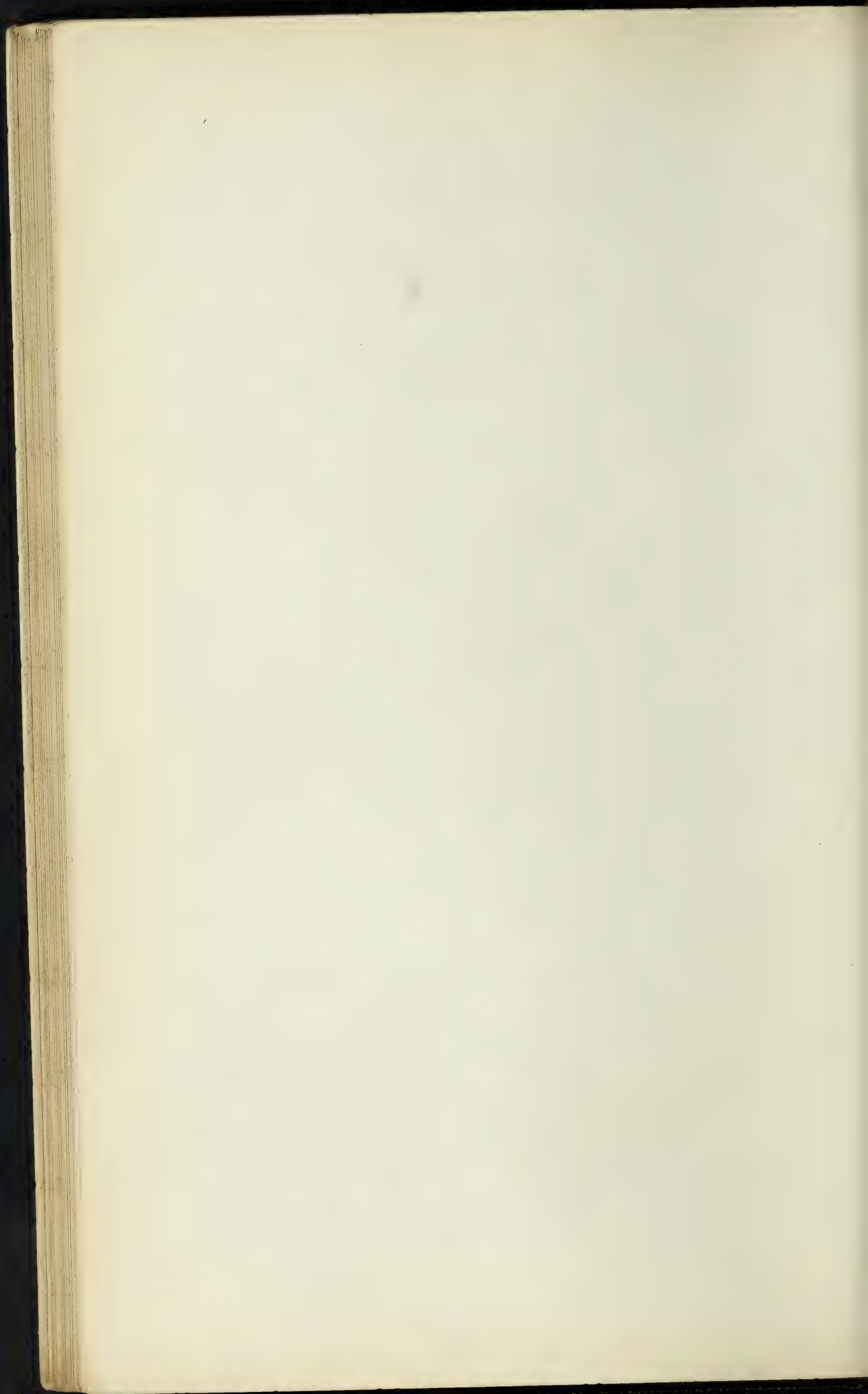
See pages 48, 76 to 79, and 95.

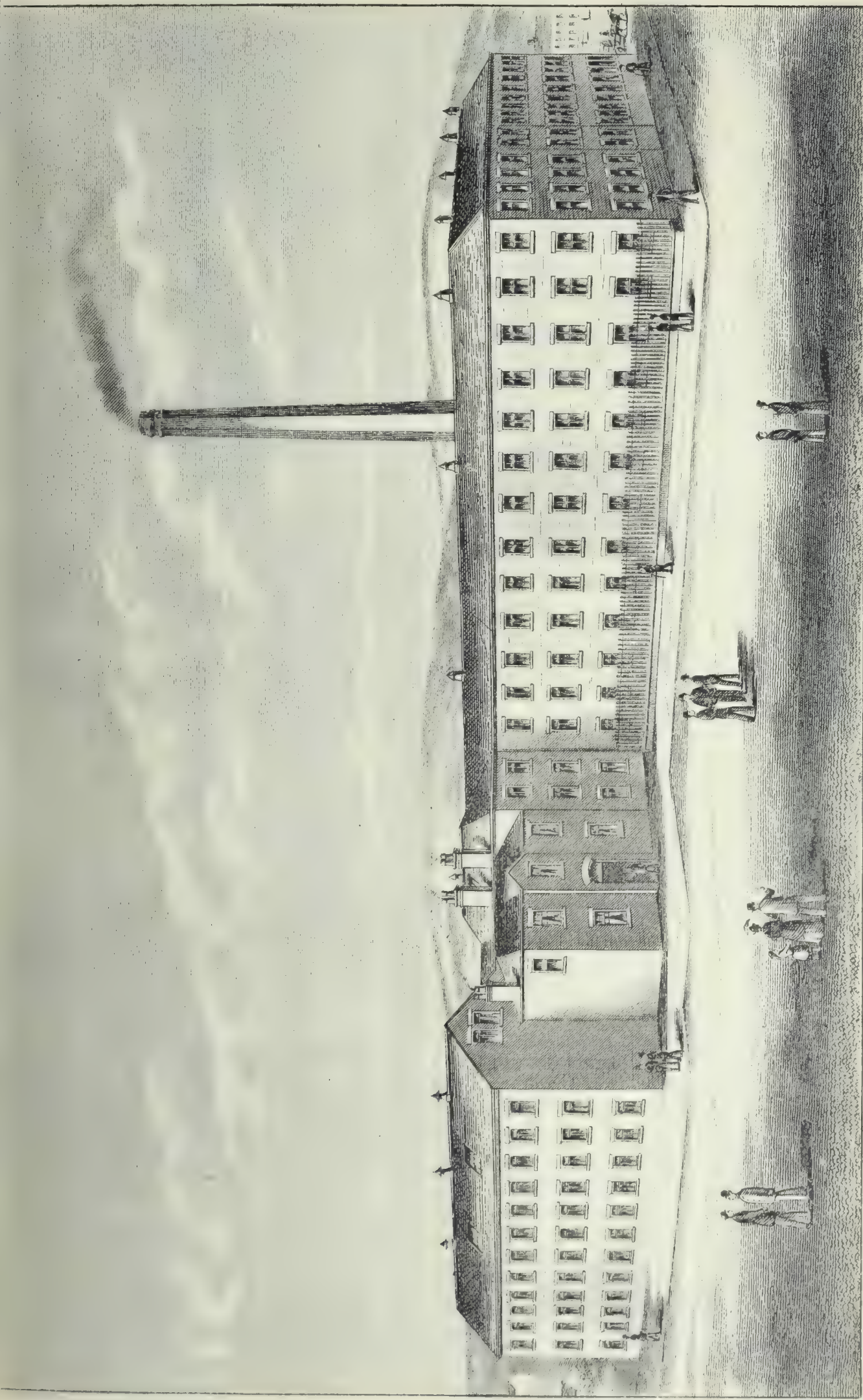


PLAN OF LEICESTER.

SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S BOOT AND SHOE WORKS FROM THE RAILWAY STATIONS AND PRINCIPAL PLACES.

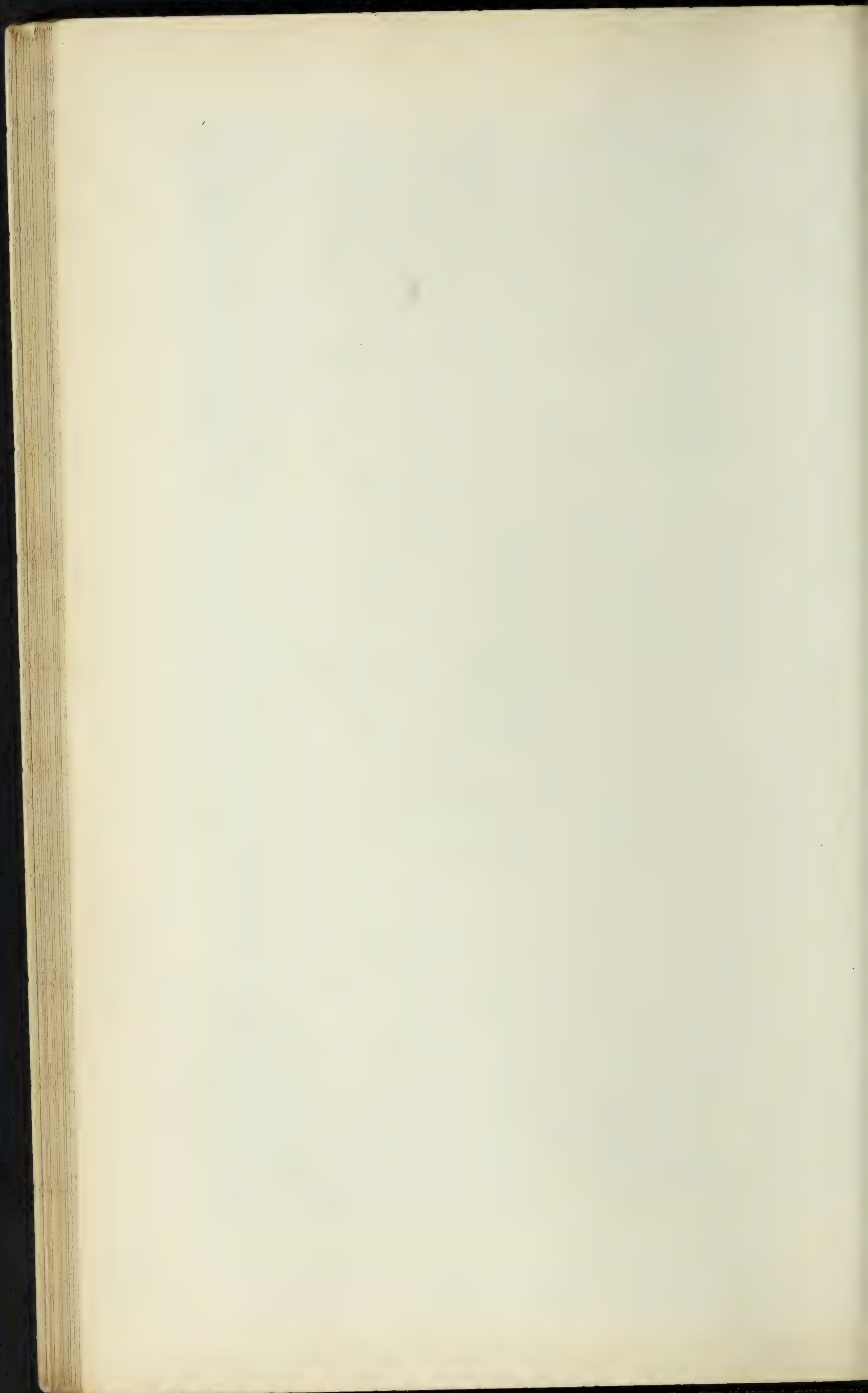


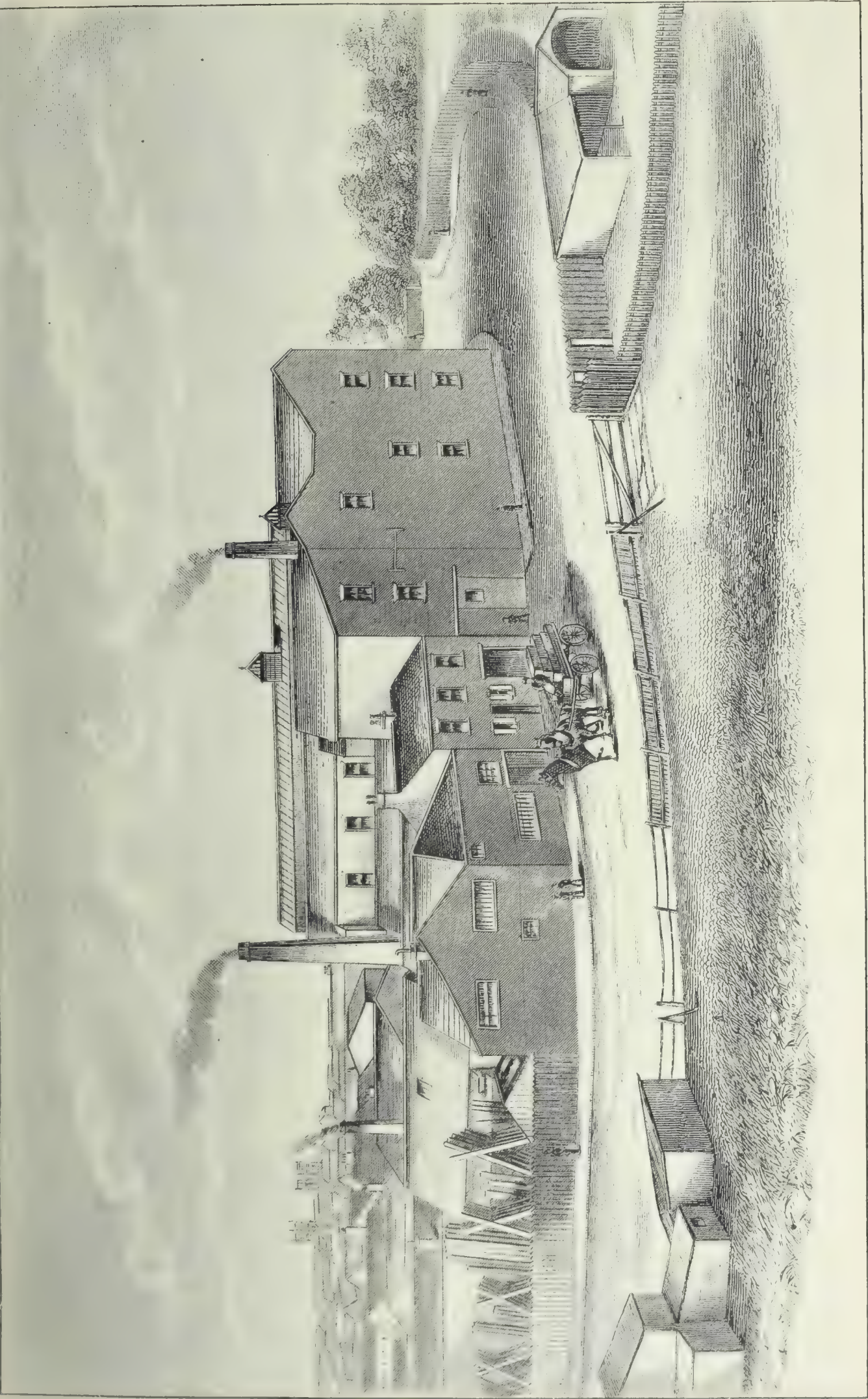




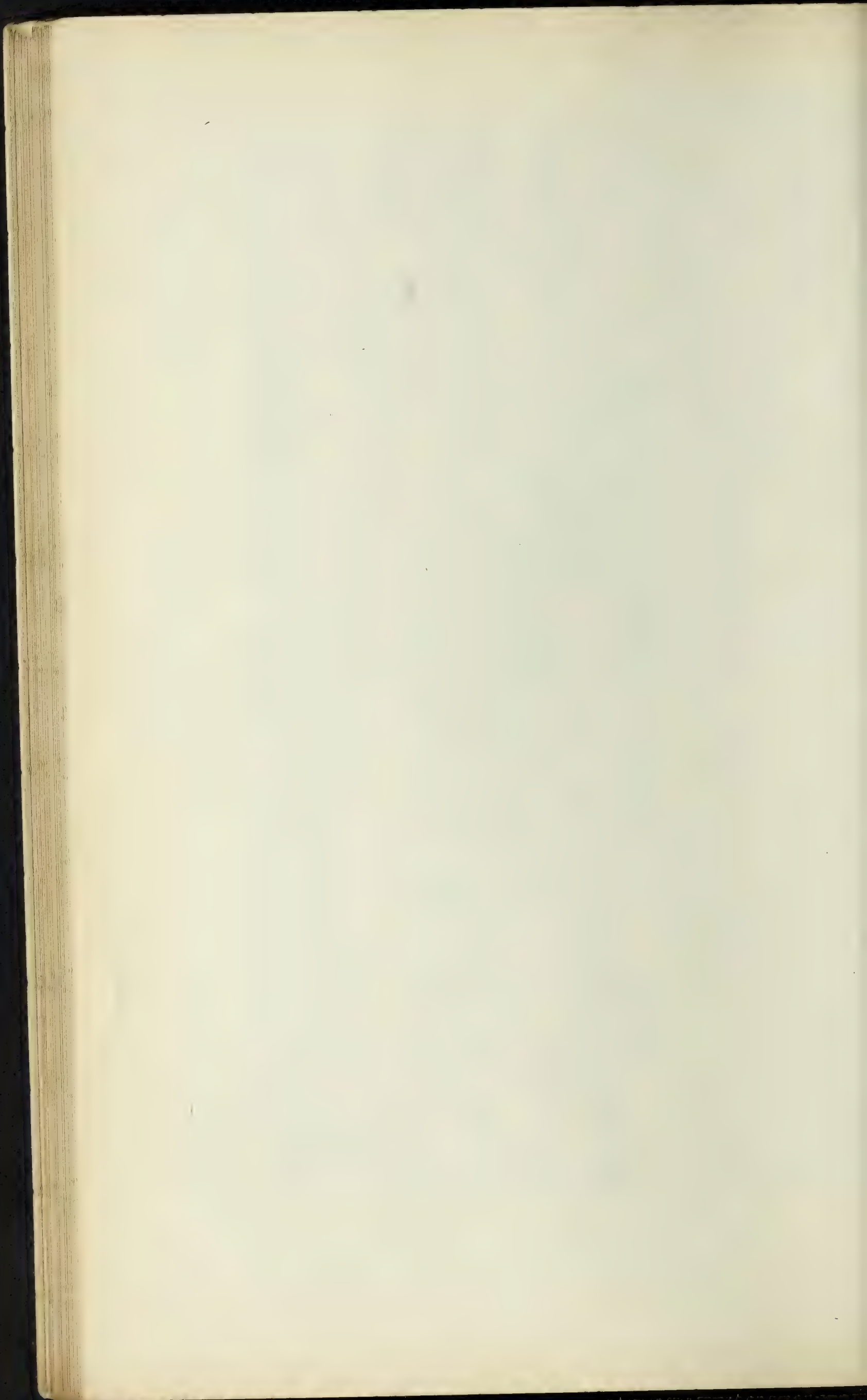
HECKMONDWIKE BOOT AND SHOE WORKS.

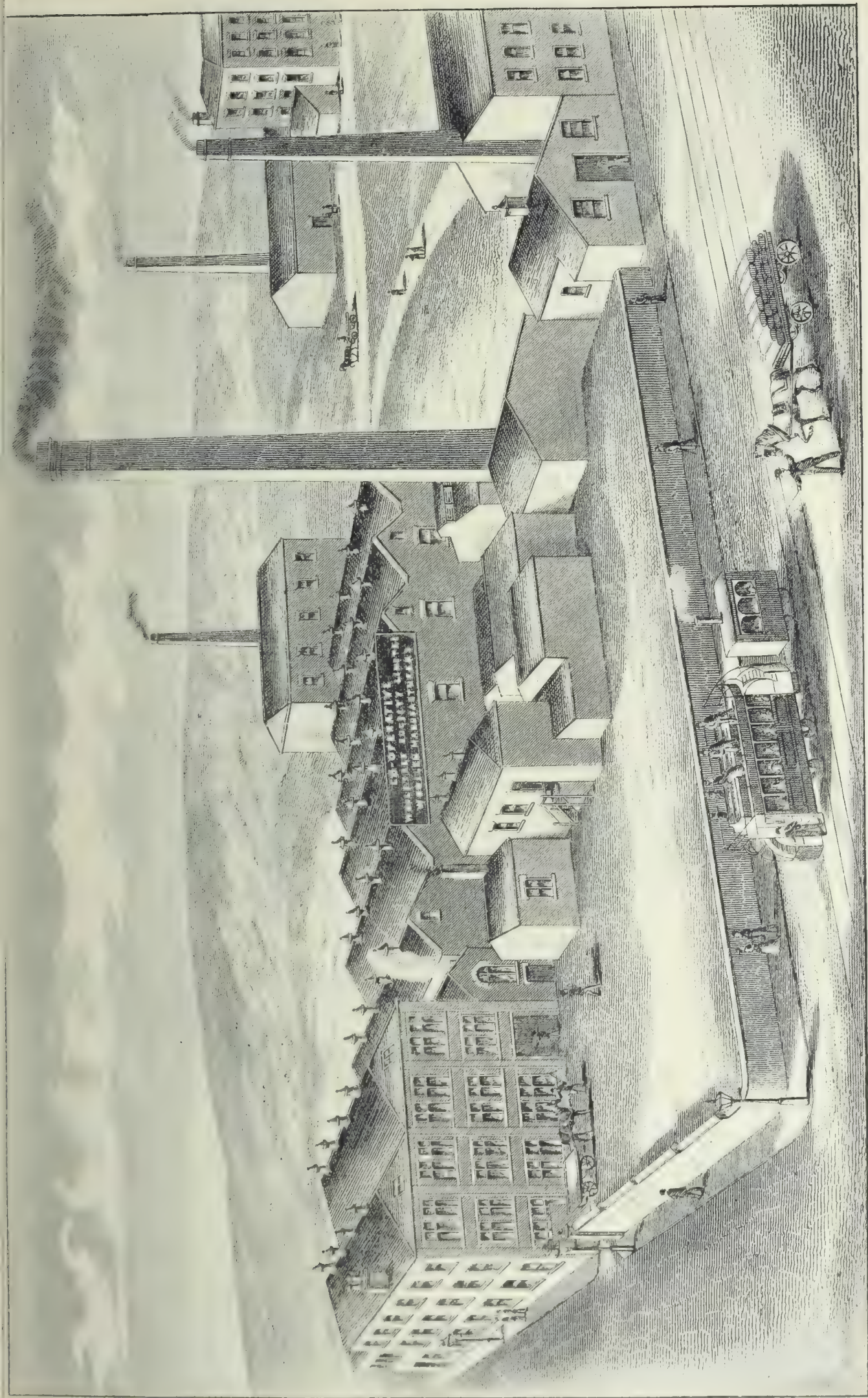
See pages 31, 48, 71 to 73, 96 and 97.





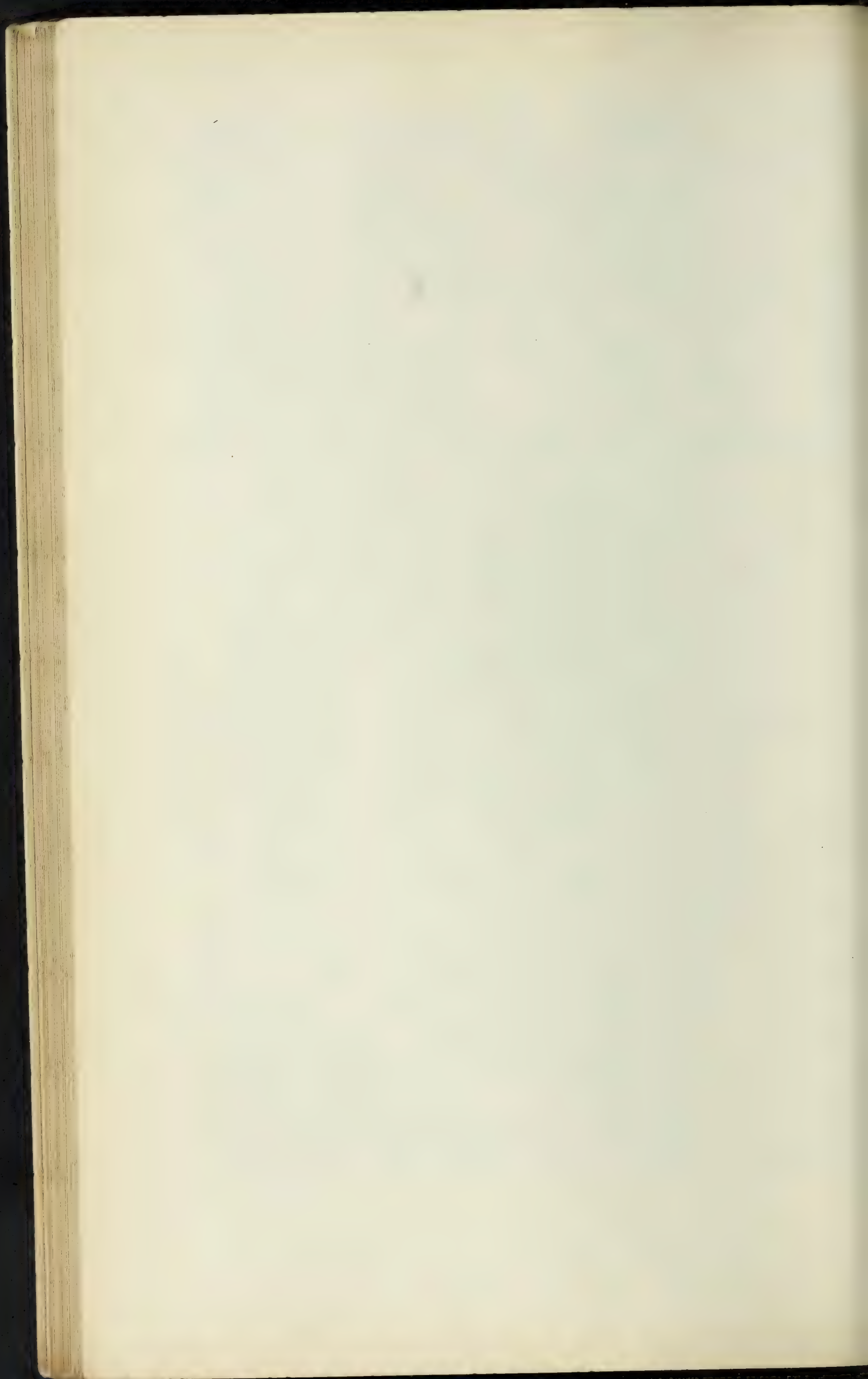
DURHAM SOAP WORKS.
See pages 32, 48, 80 to 83, and 98.

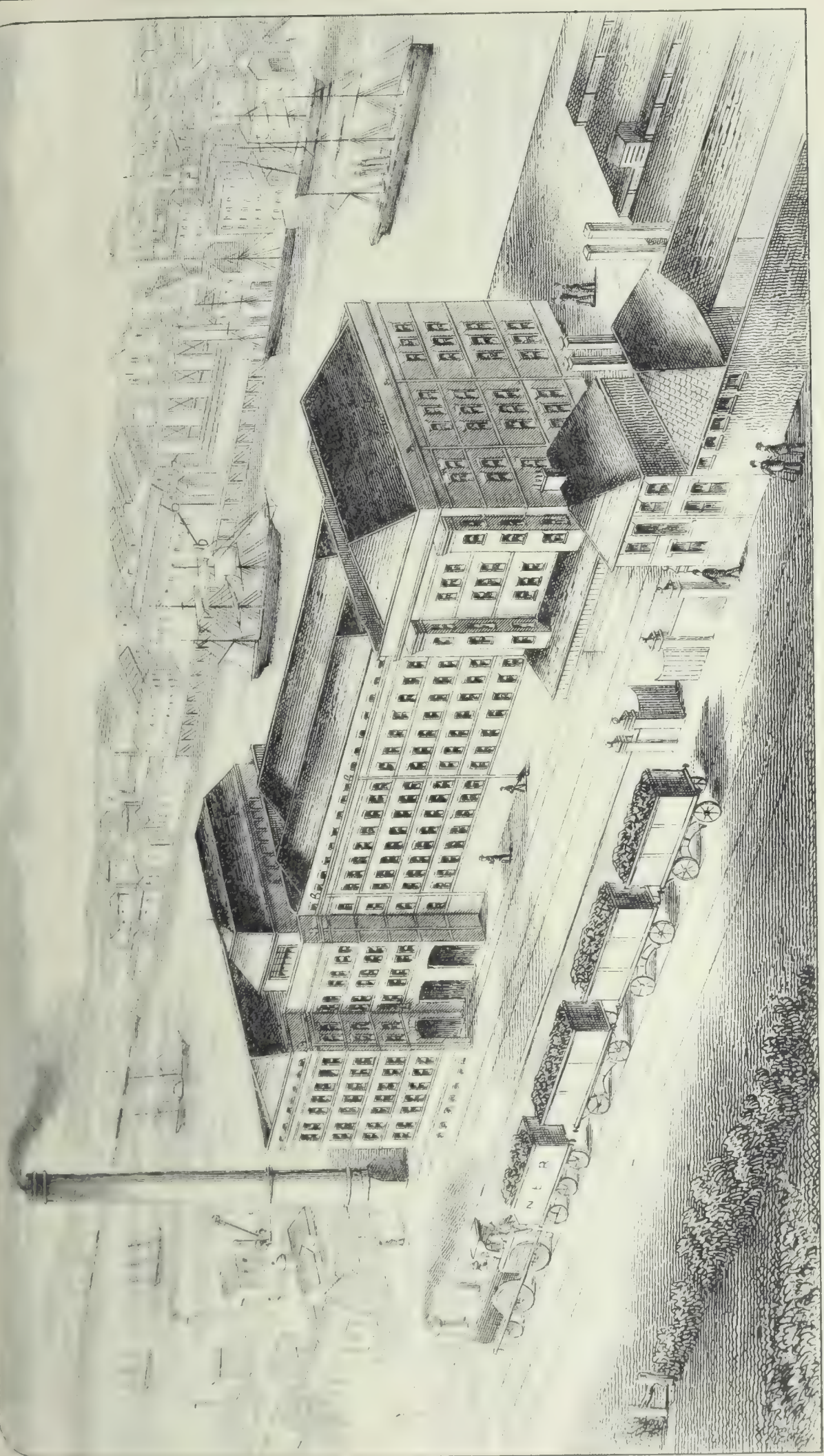




LIVINGSTONE MILL, BATLEY.—WOOLLEN CLOTH WORKS.

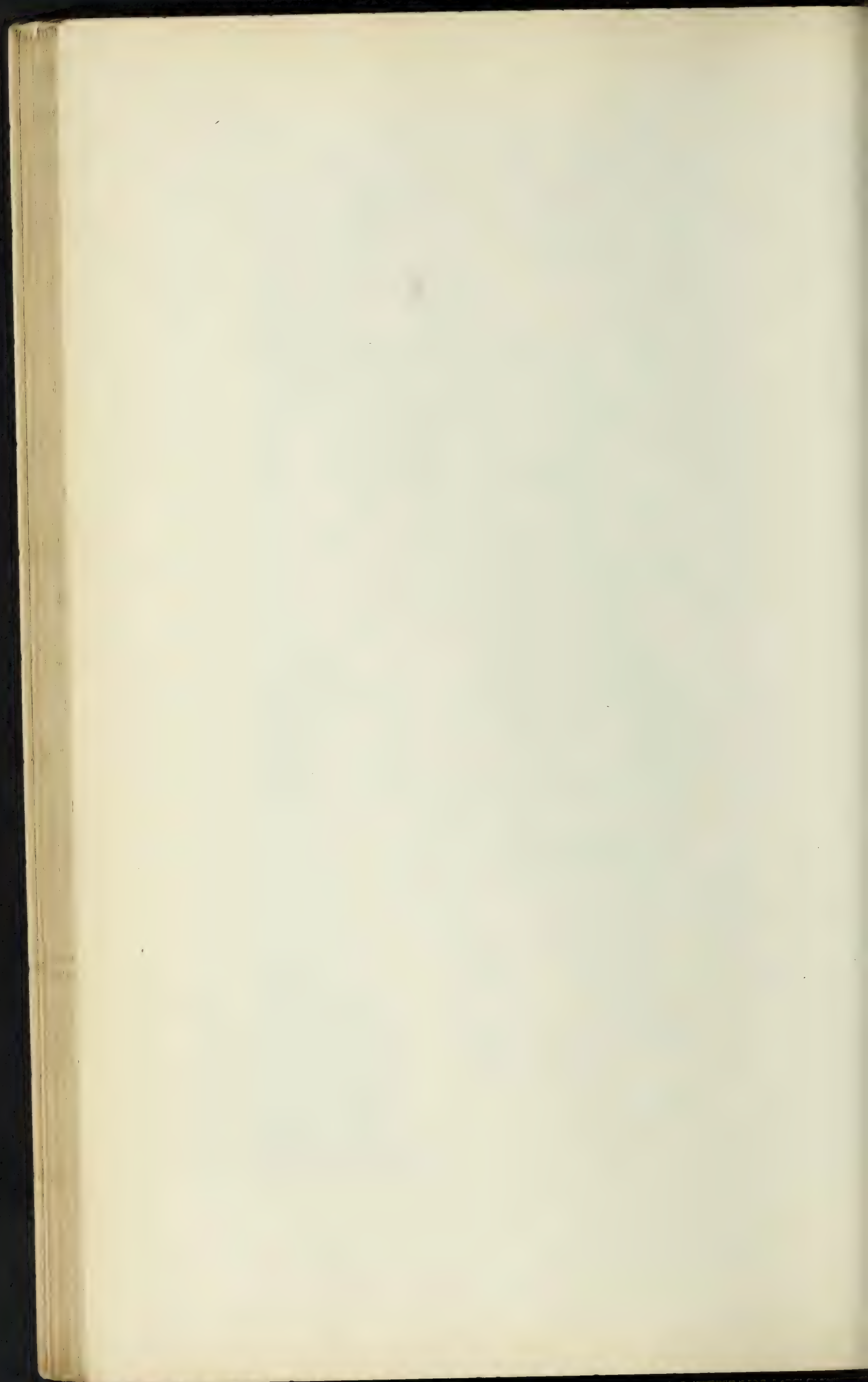
See pages 33, 48, 85 and 86, and 99.

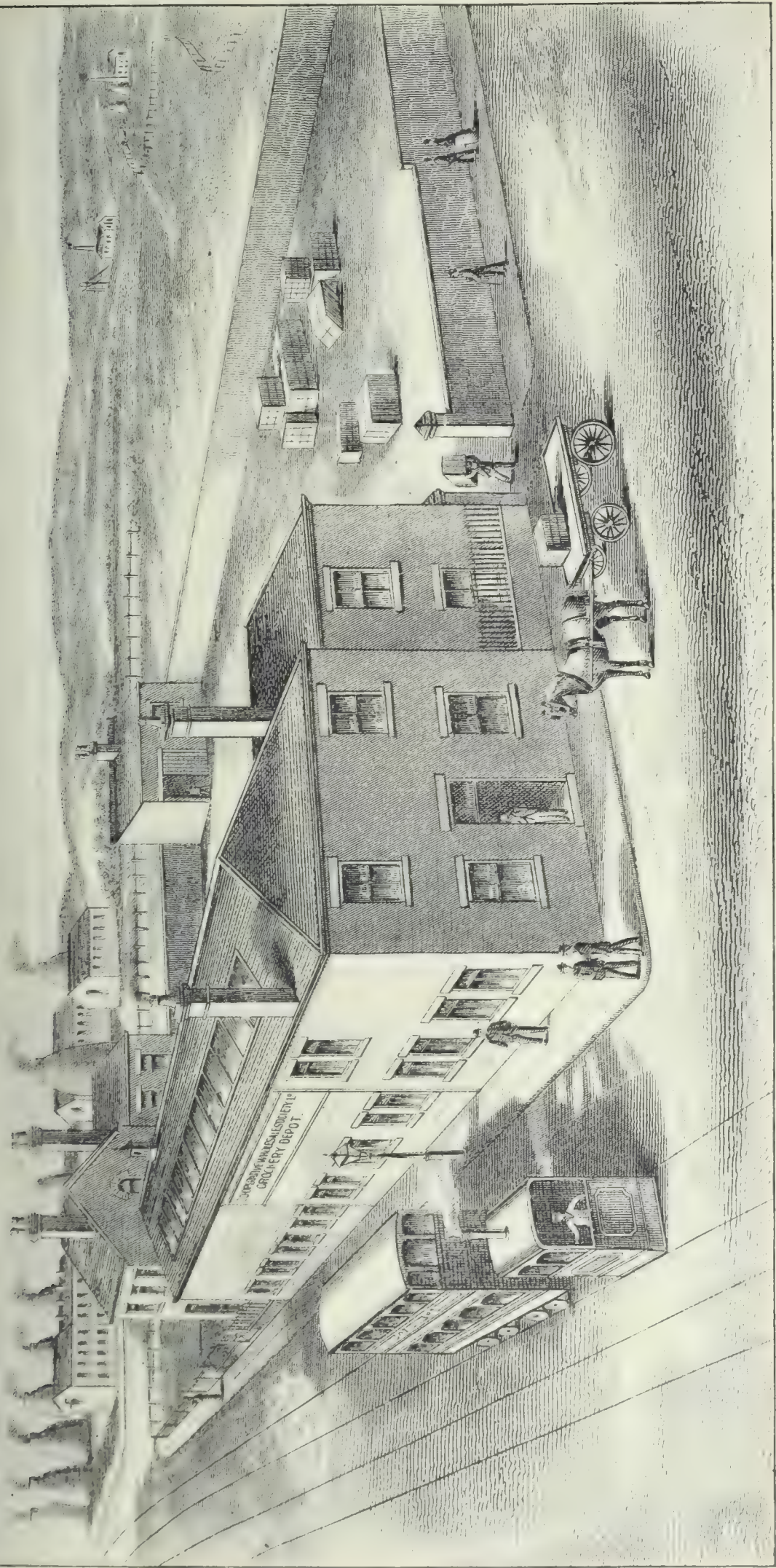




DUNSTON CORN MILL.

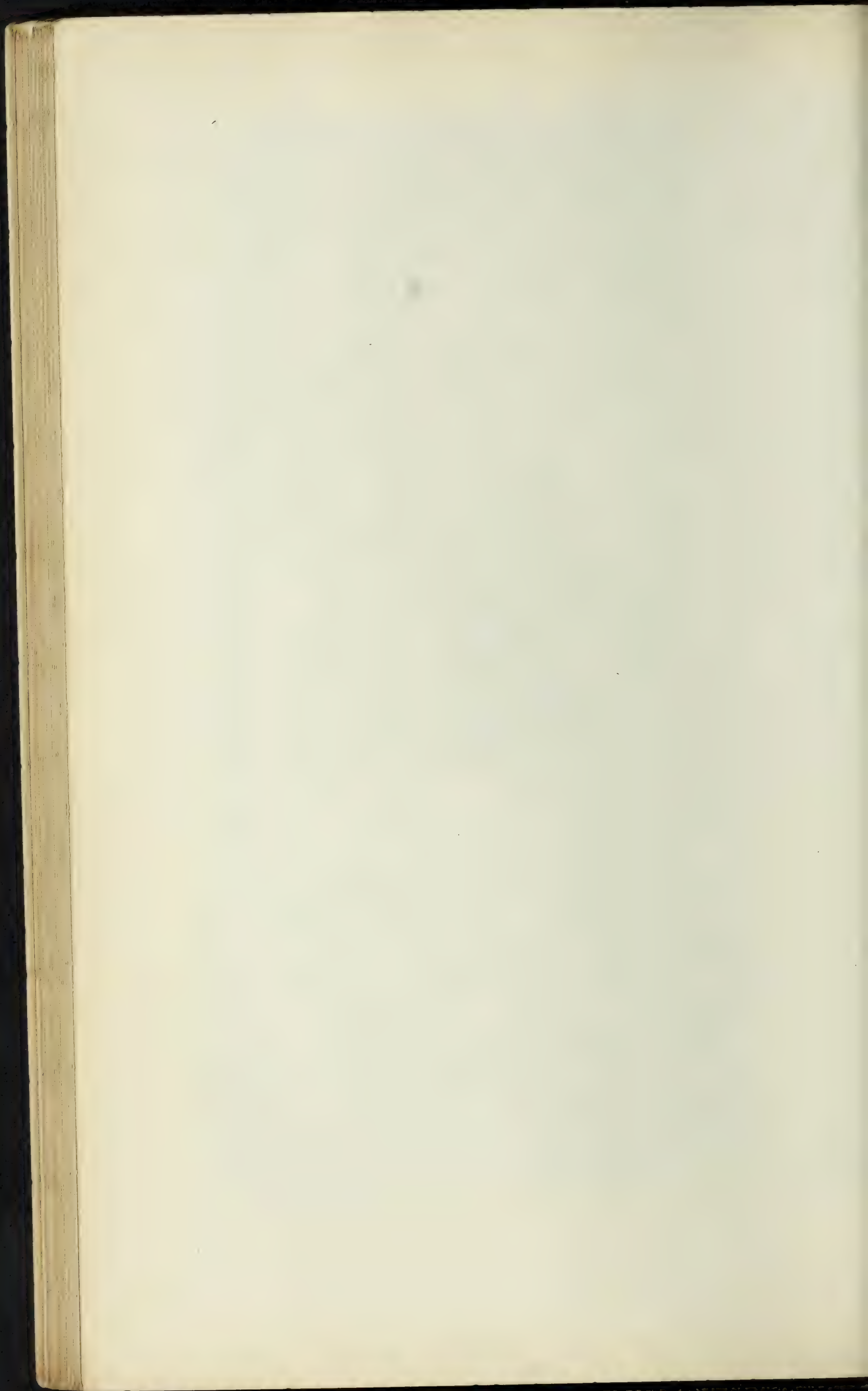
See pages 48 and 84.

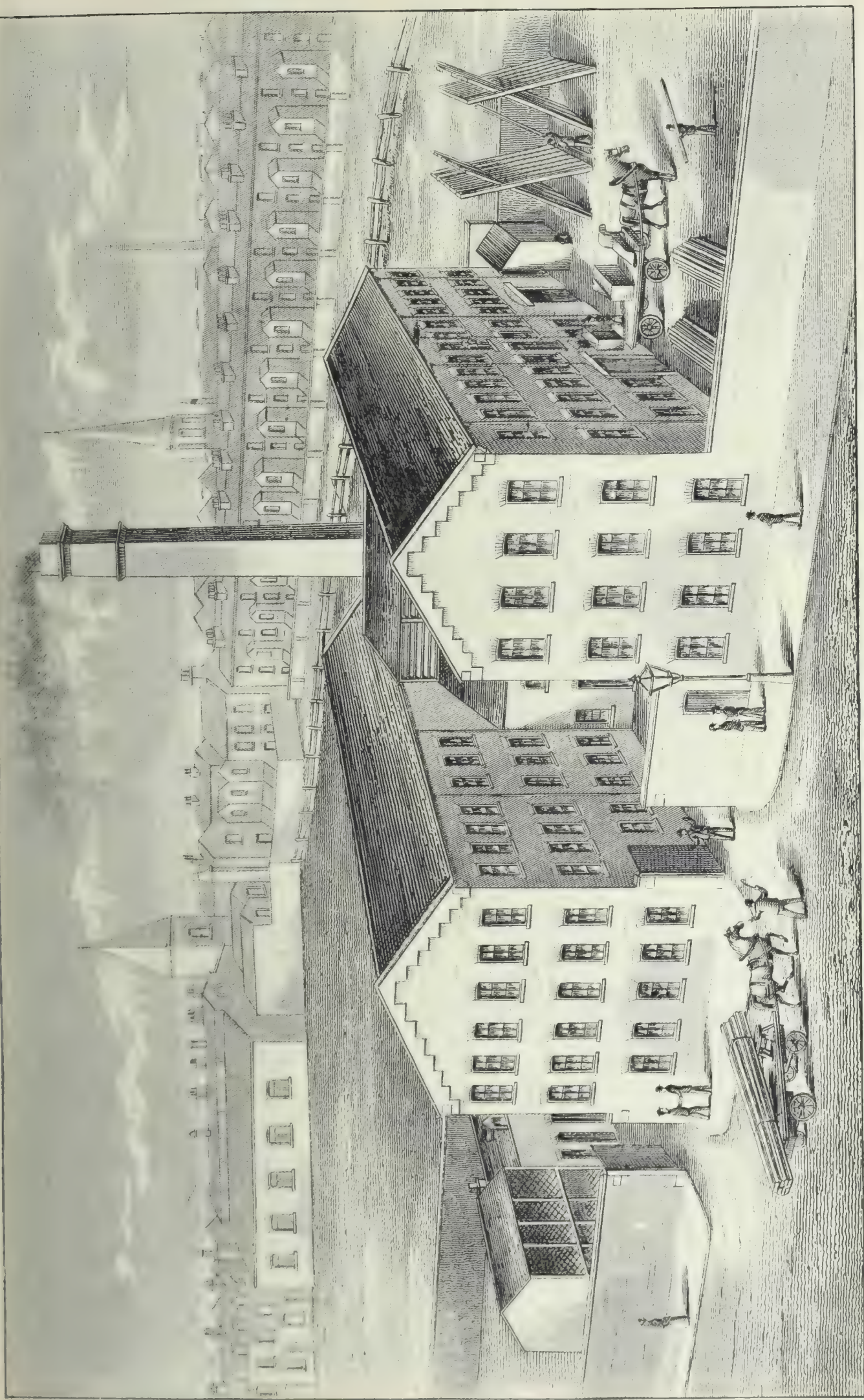




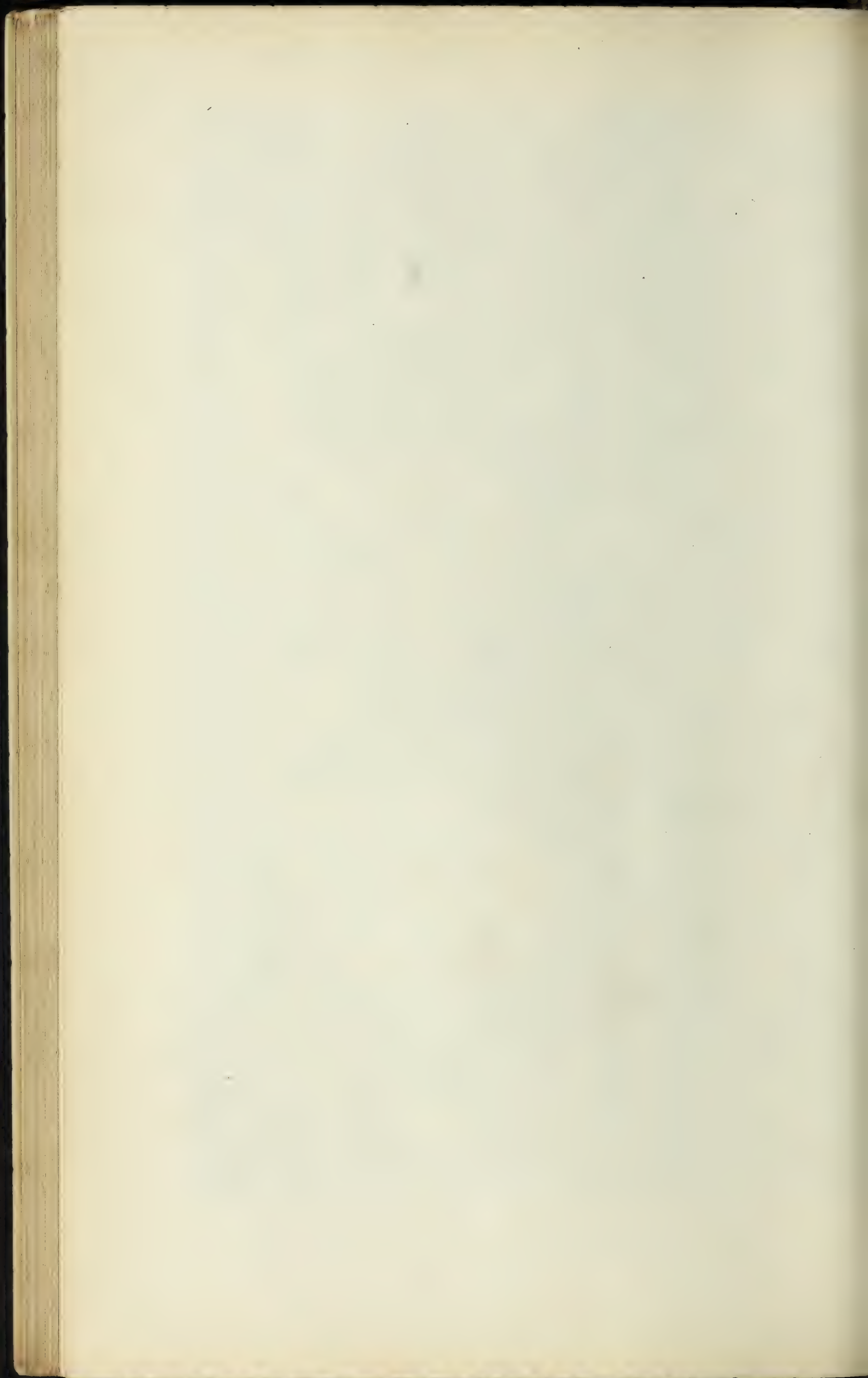
LONGTON CROCKERY DEPOT.

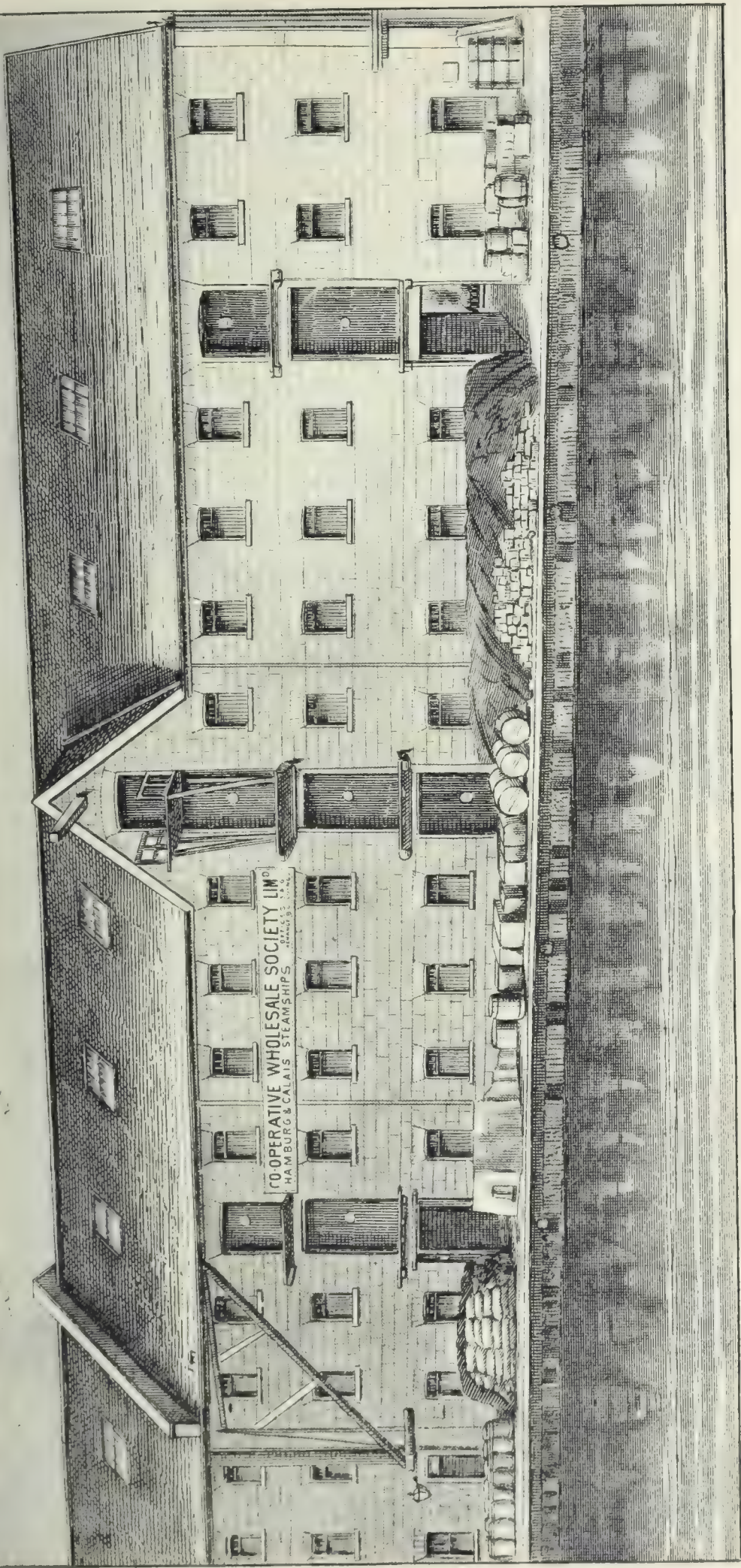
See pages 26, 48, 87, and 99.



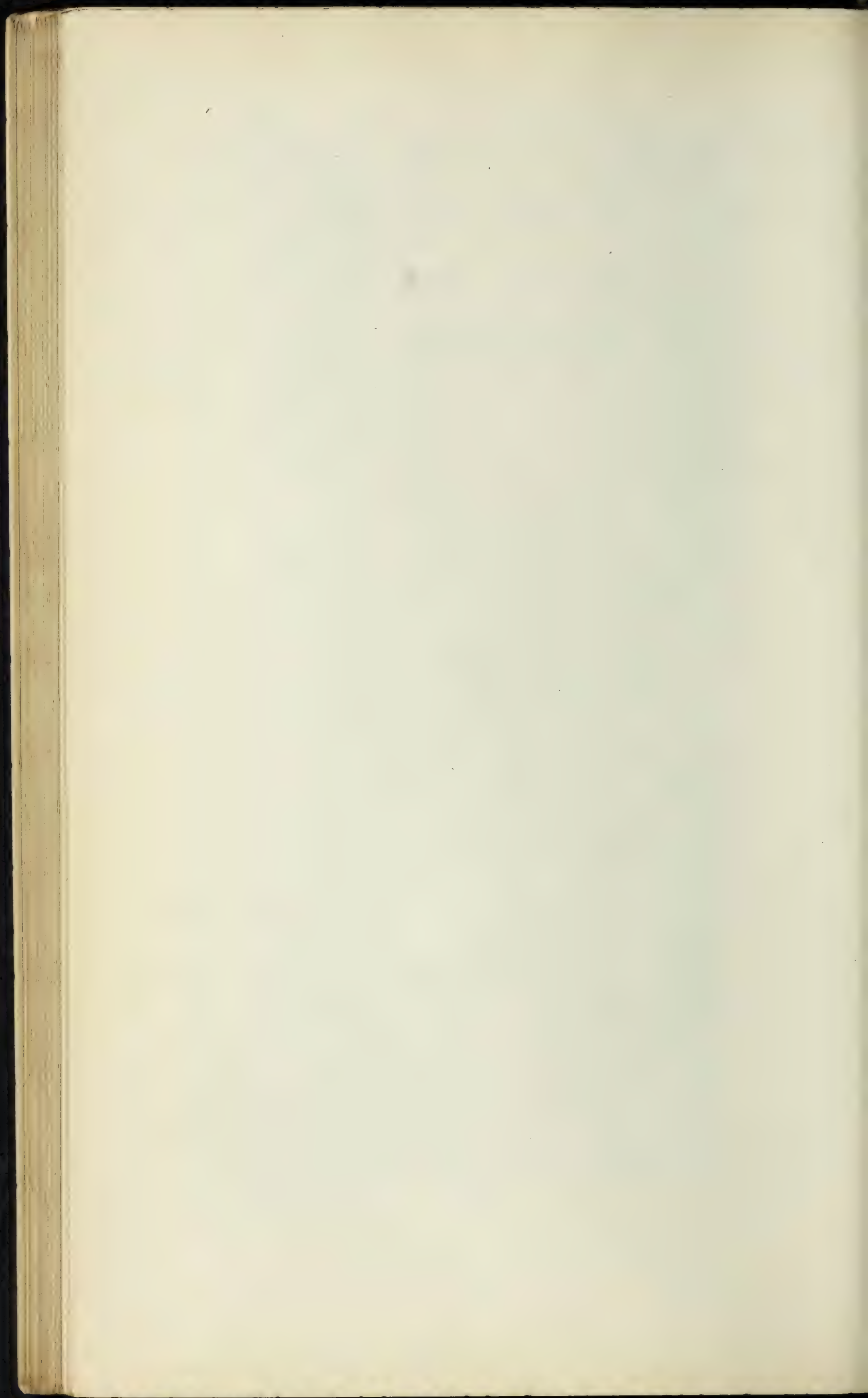


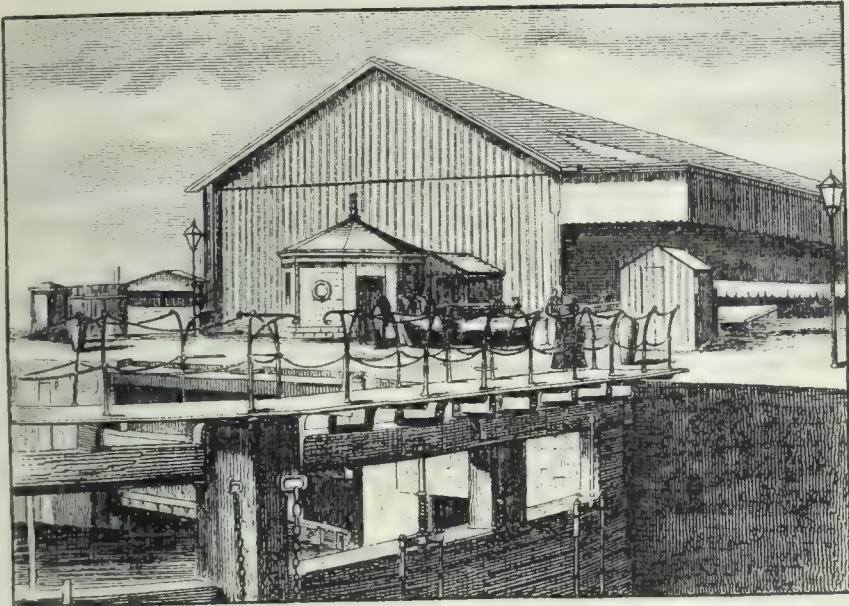
FURNITURE FACTORY, BROUGHTON, NEAR MANCHESTER.
See page 48.



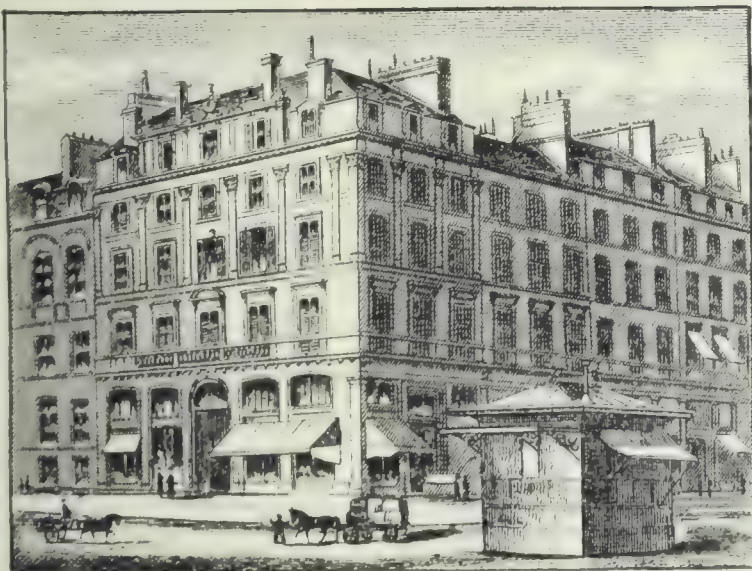


GOOLE WAREHOUSE.

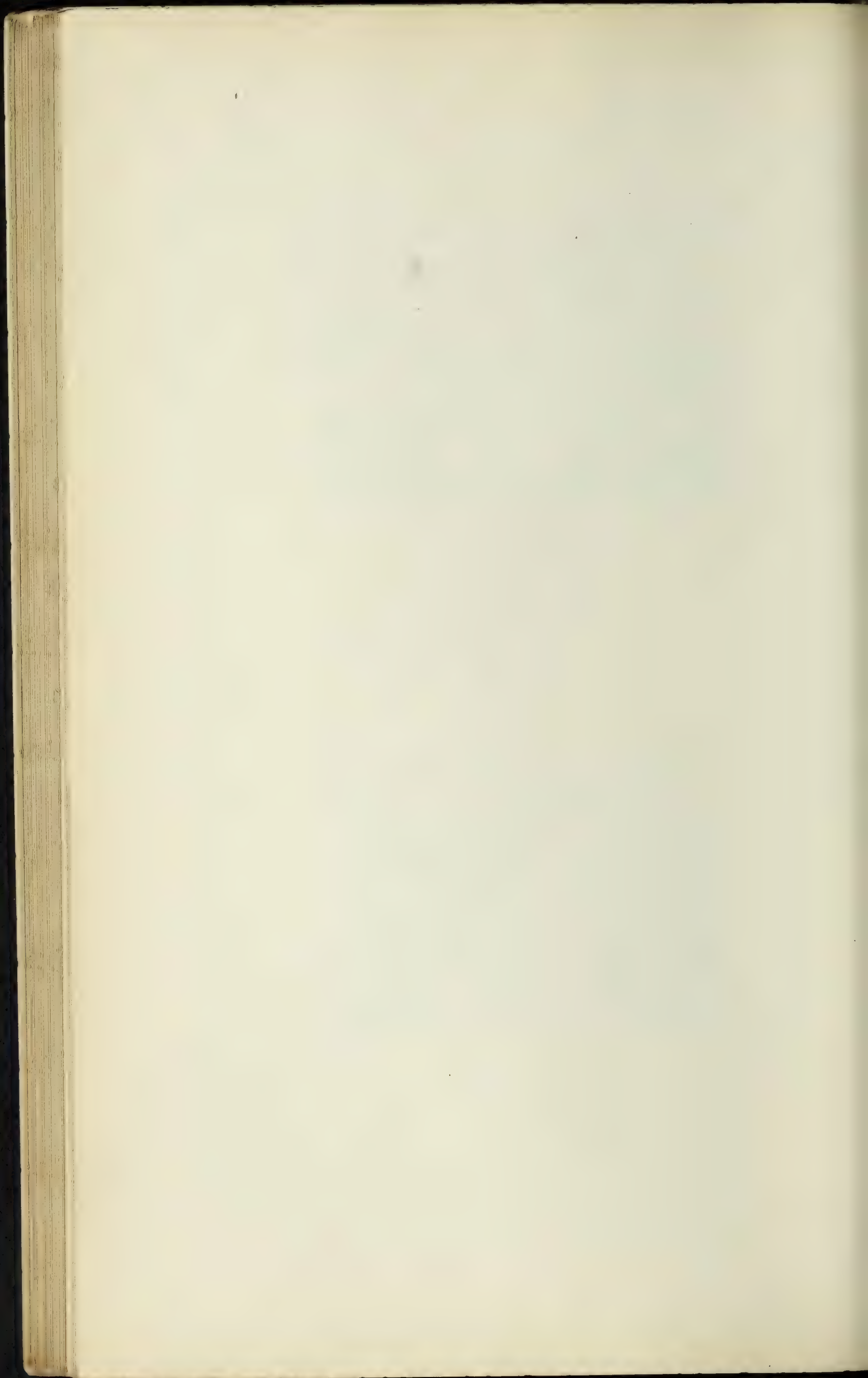


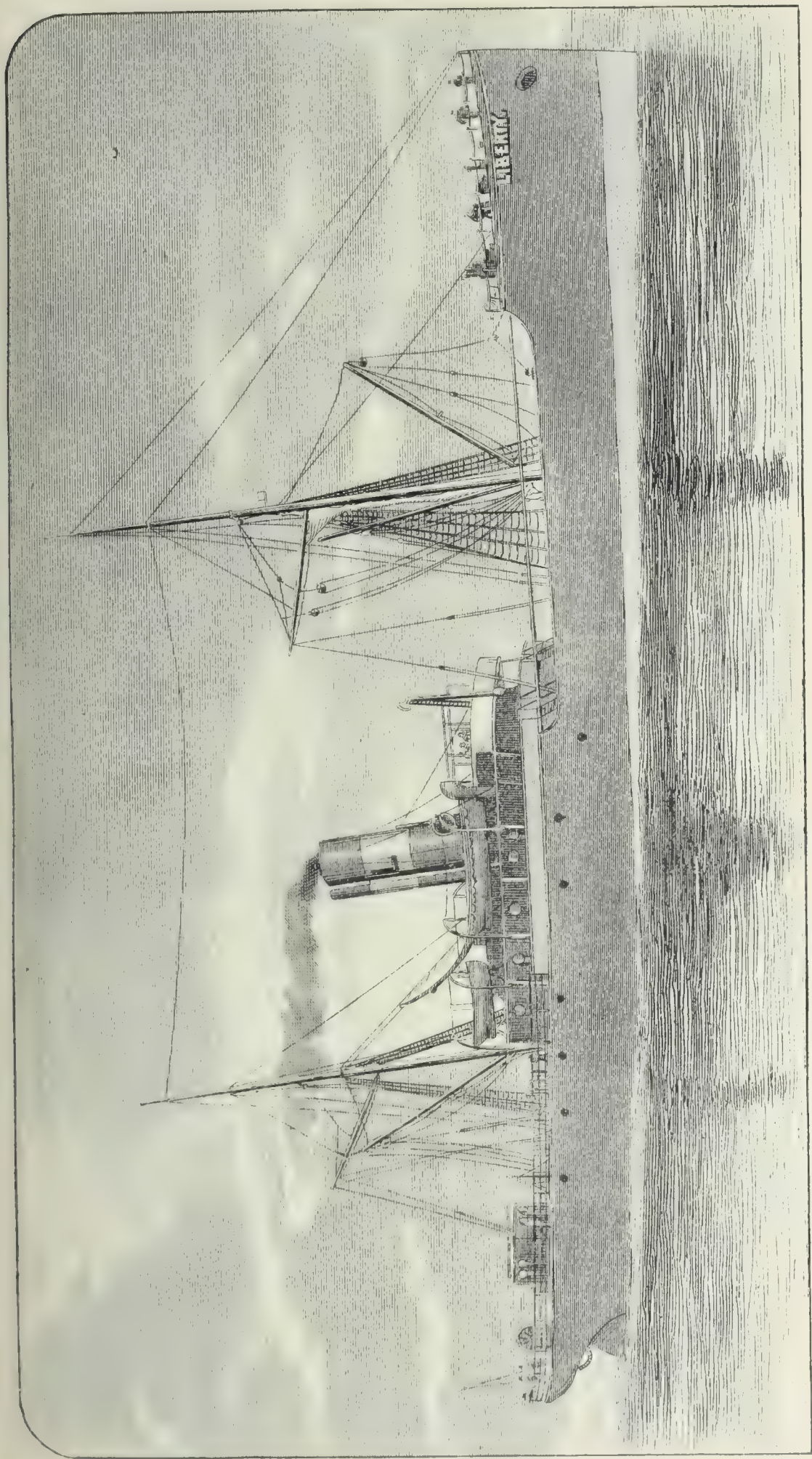


GARSTON OFFICES,
WEST SIDE, NEW DOCK, GARSTON, NEAR LIVERPOOL.

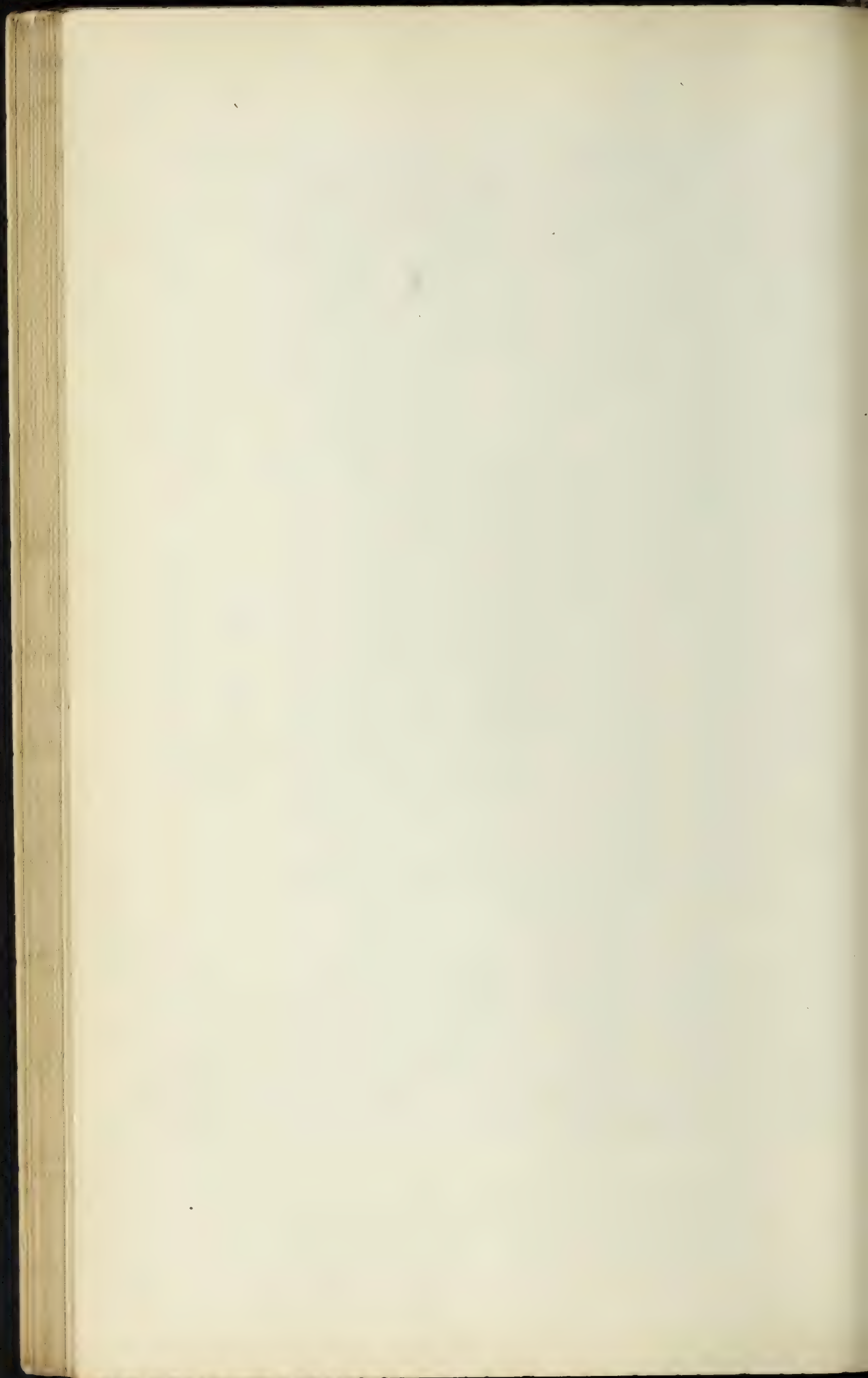


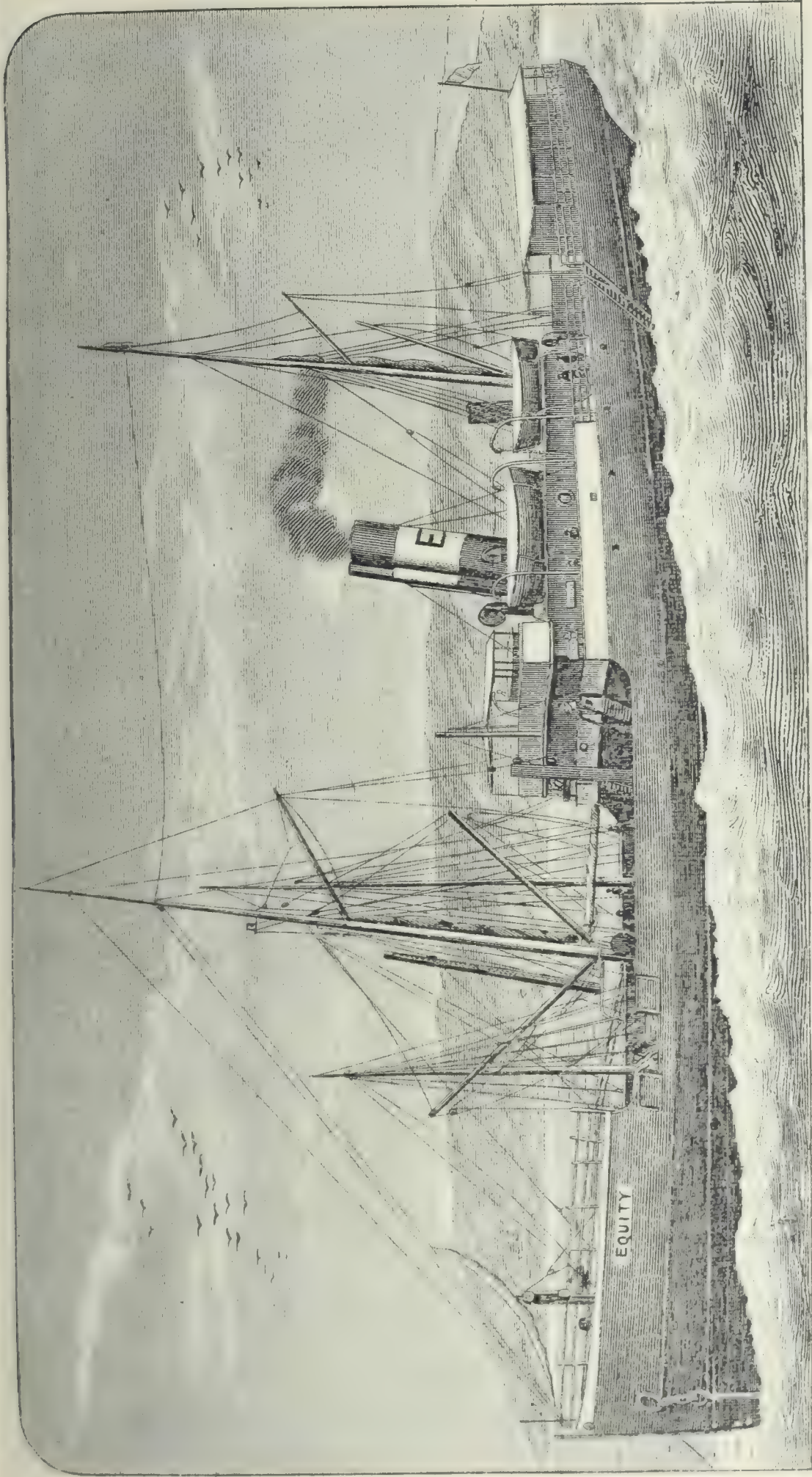
ROUEN OFFICES,
2, RUE JEANNE D'ARC, ROUEN, FRANCE.





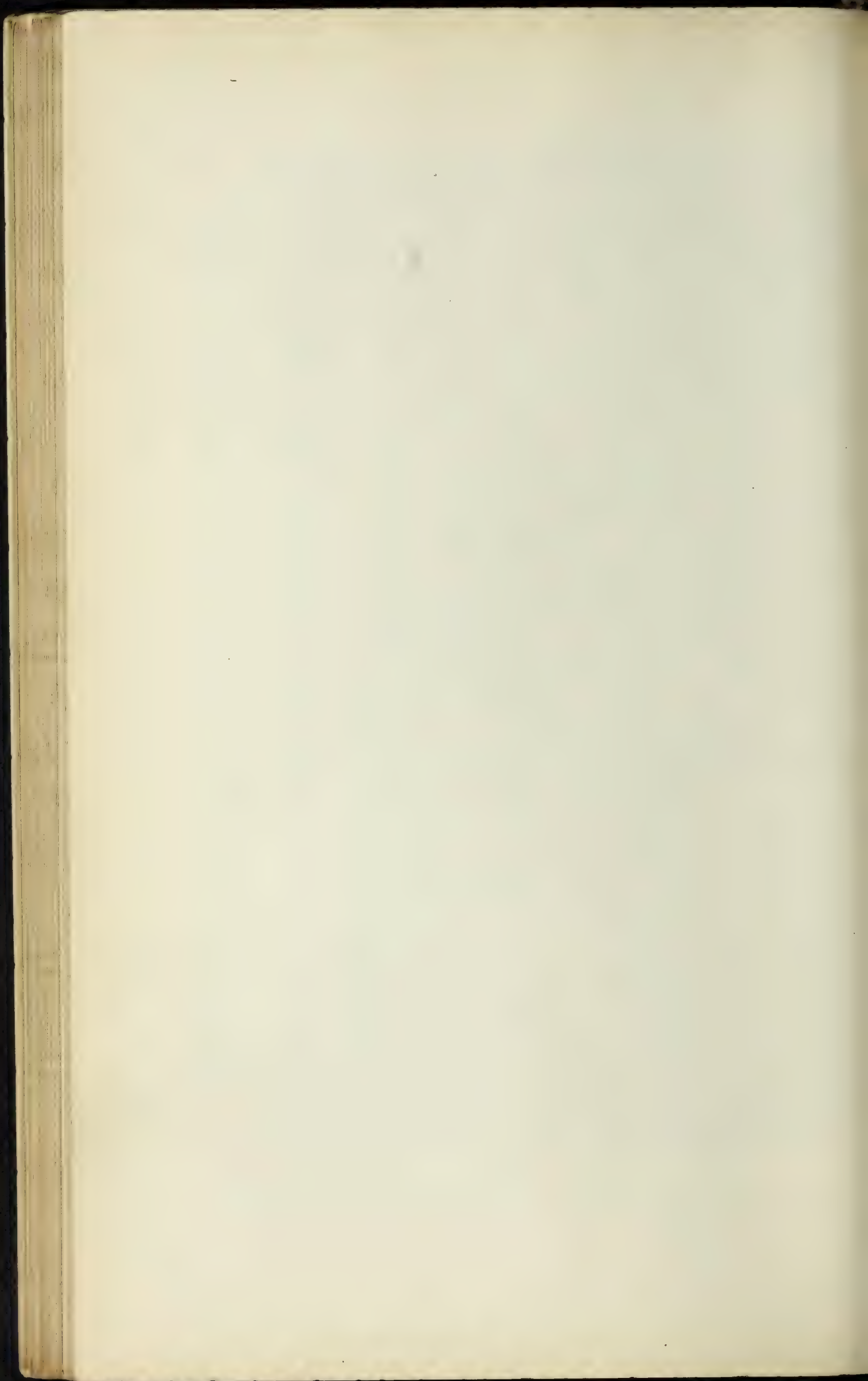
S.S. "LIBERTY."
GOOLE-HAMBURG LINE. See pages 38 and 48.





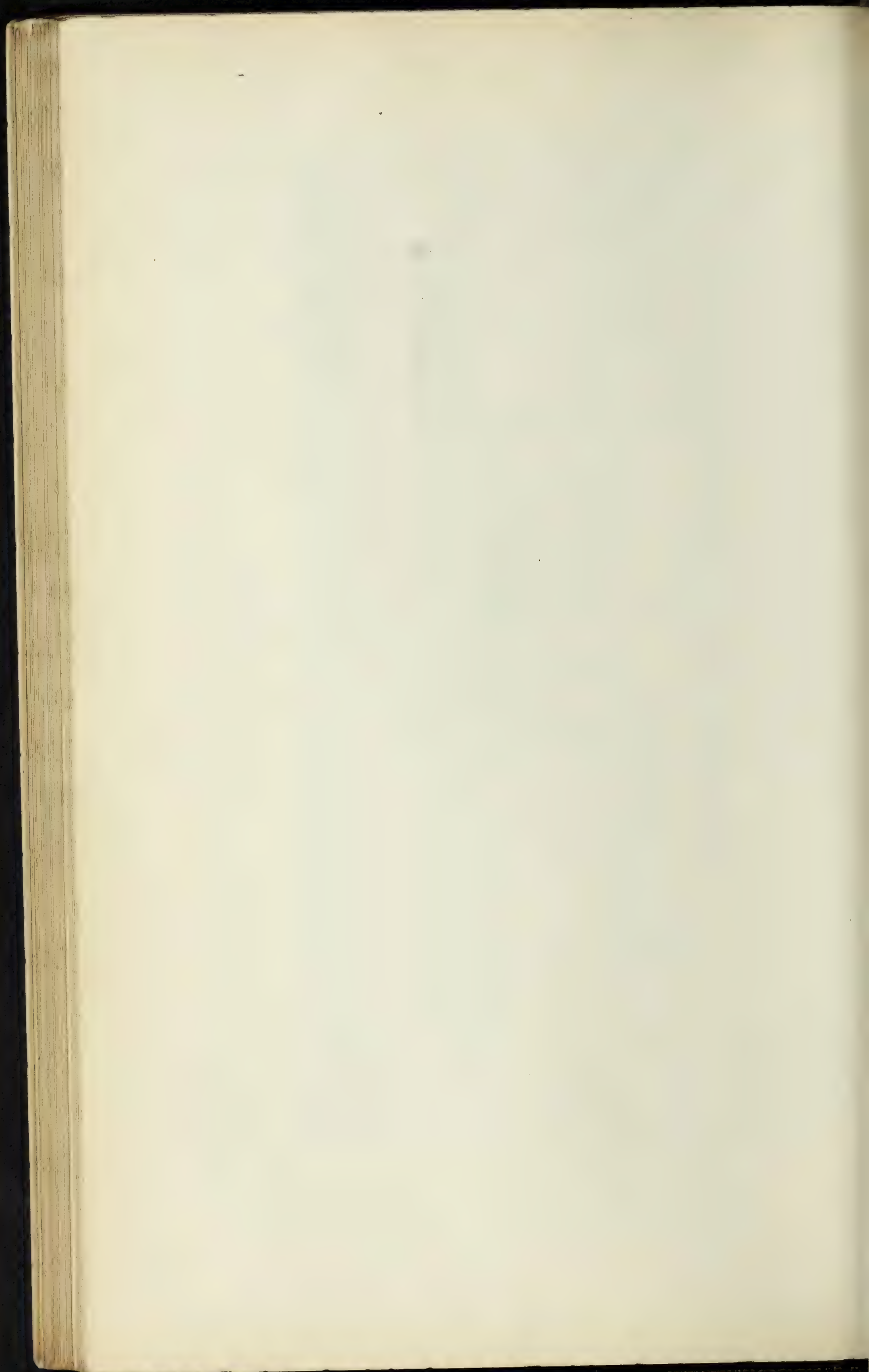
S.S. "EQUITY."

GOOLE-HAMBURG LINE. See pages 38 and 48.



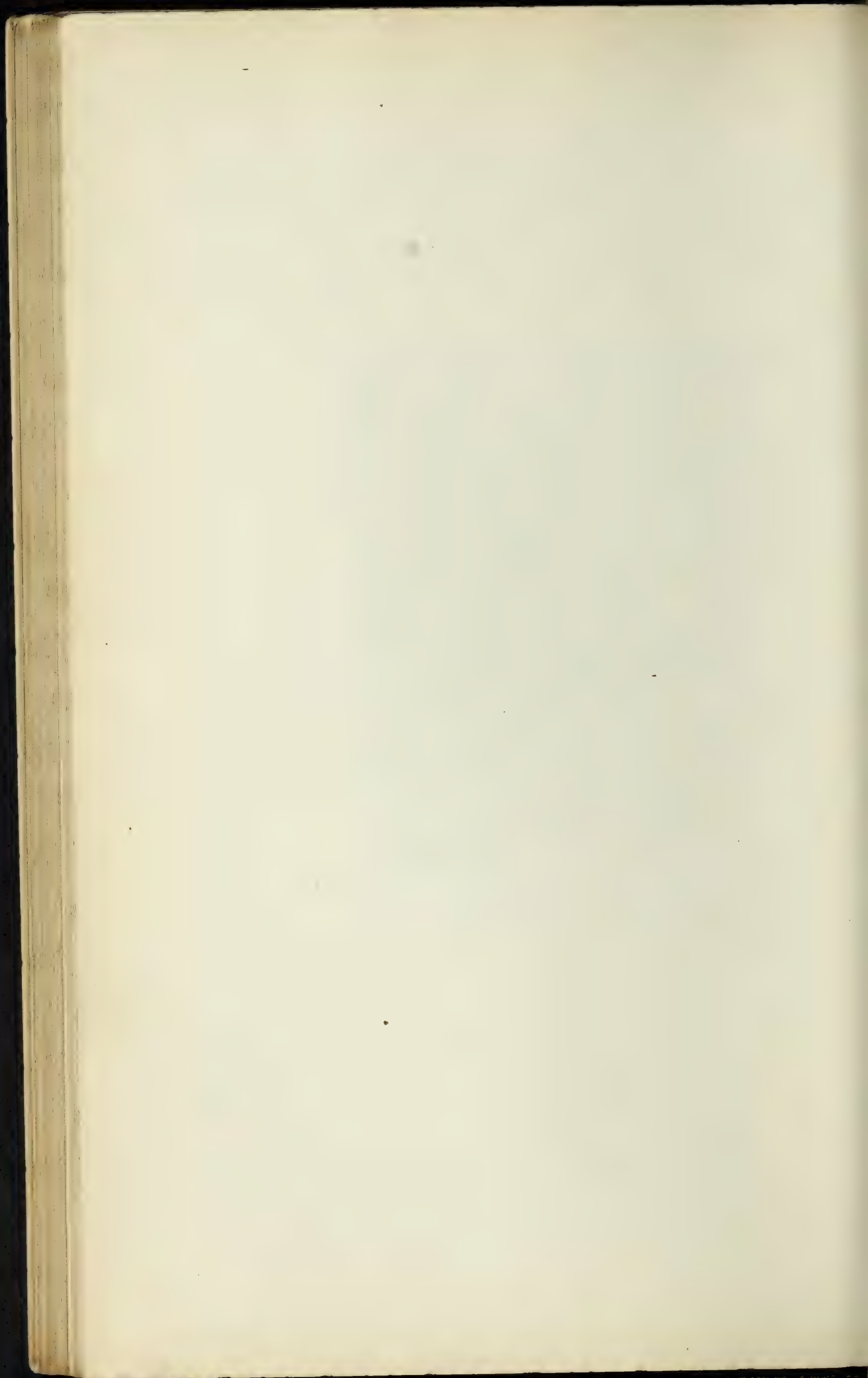


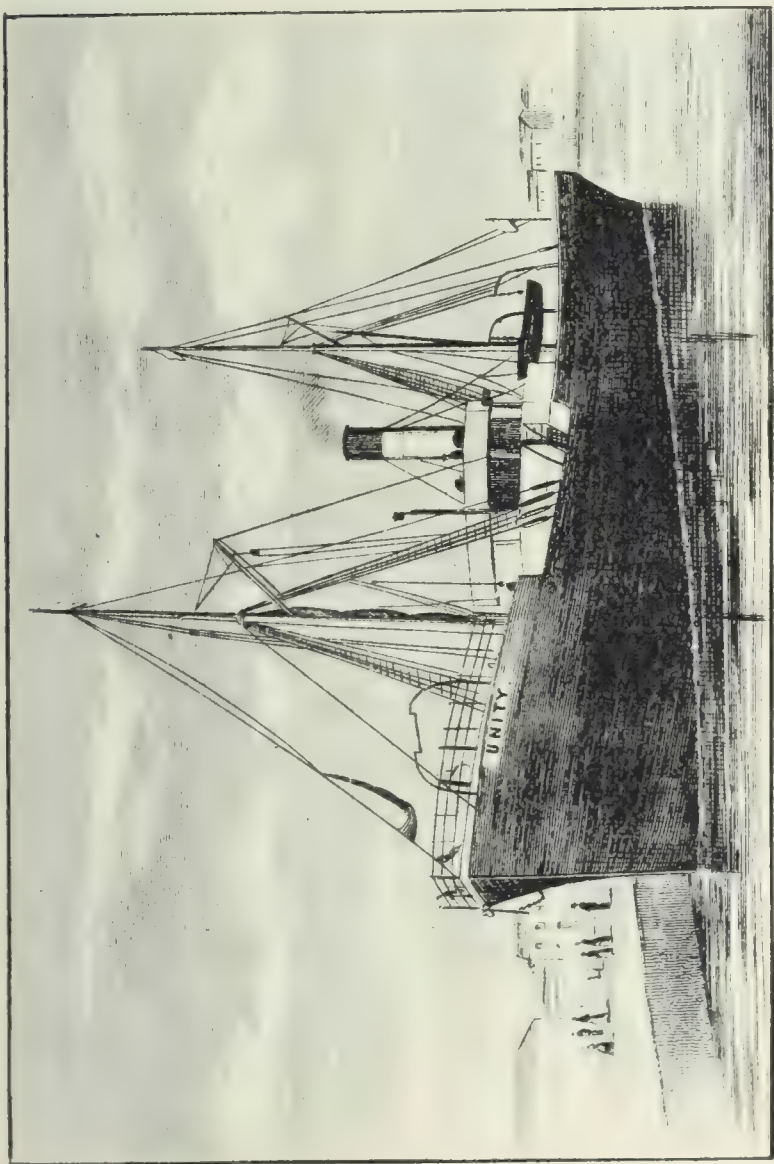
S.S. "FEDERATION."
GOOLE-HAMBURG LINE. See pages 38 and 48.



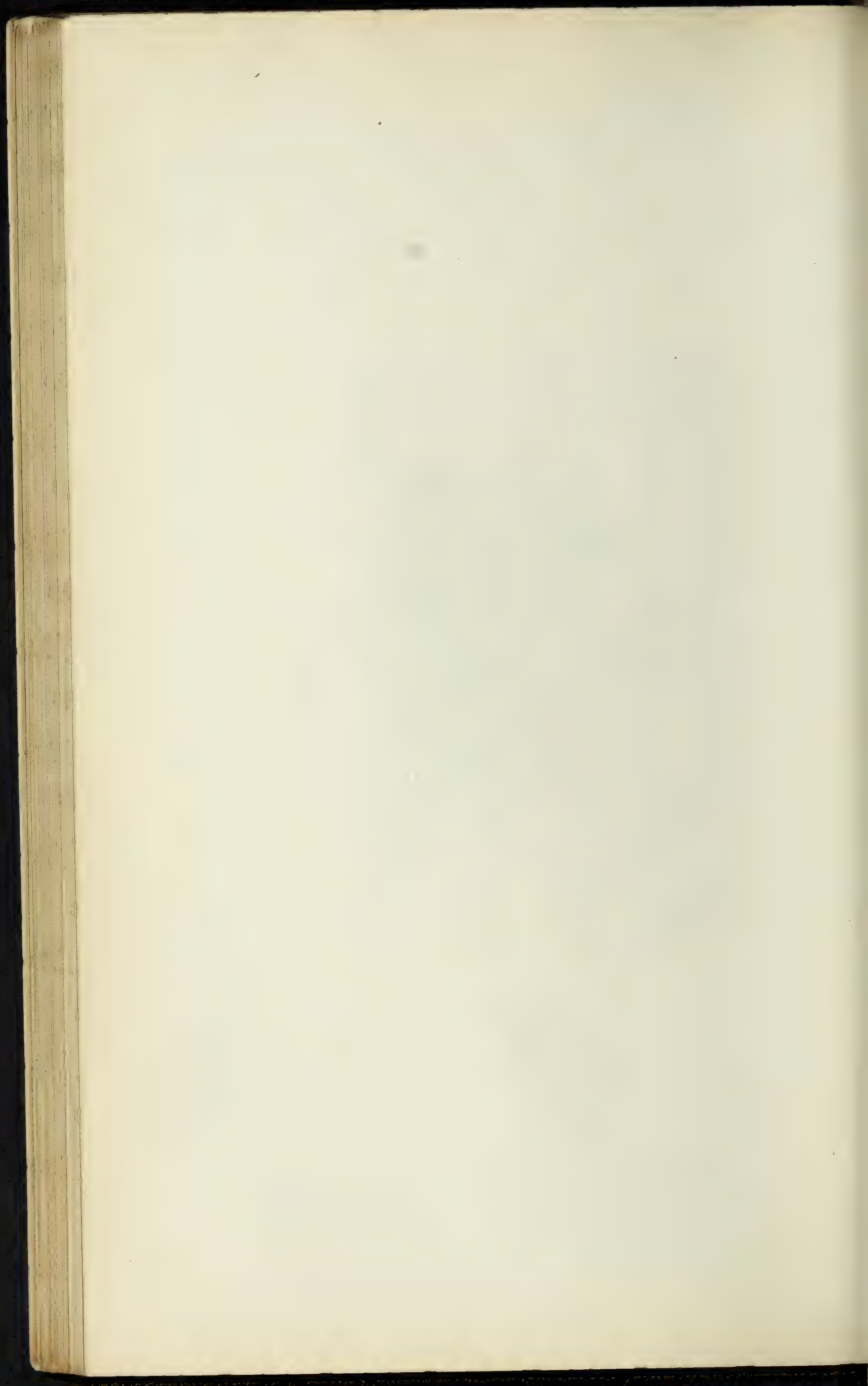


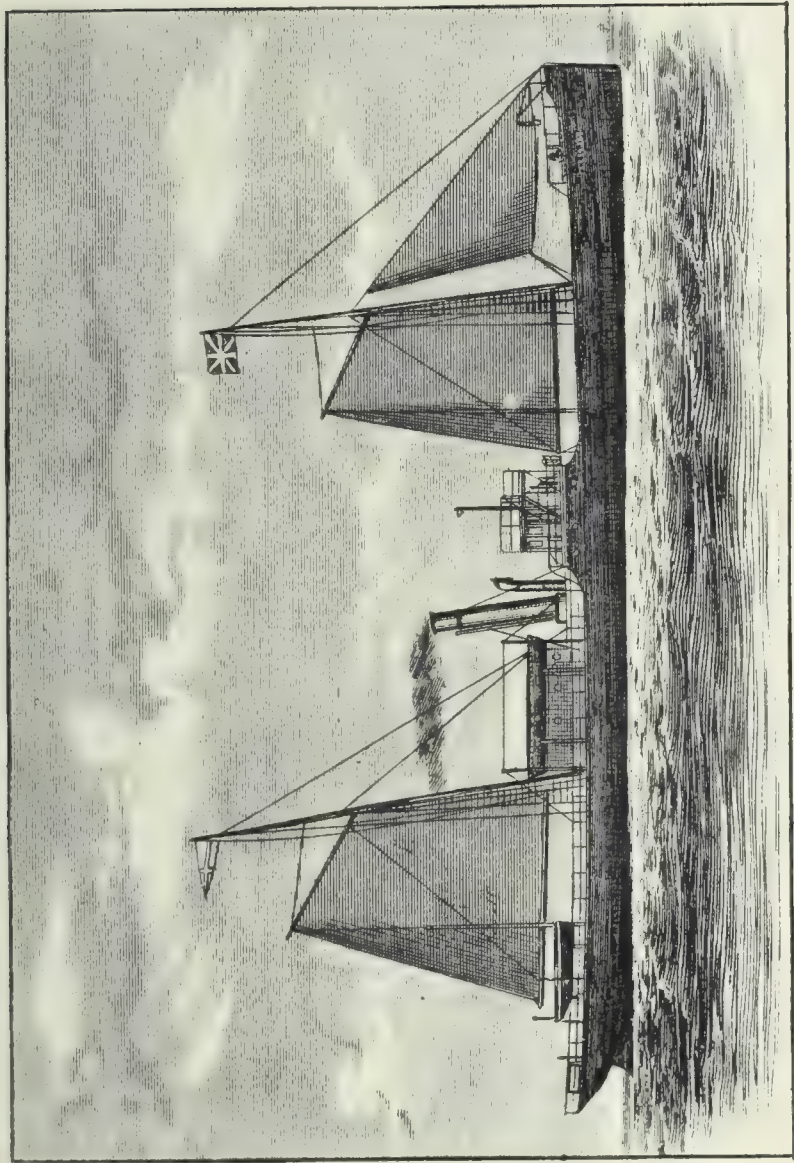
S.S. "PIONEER,"
GOOLE-CALAIS LINE. See pages 37 and 48.



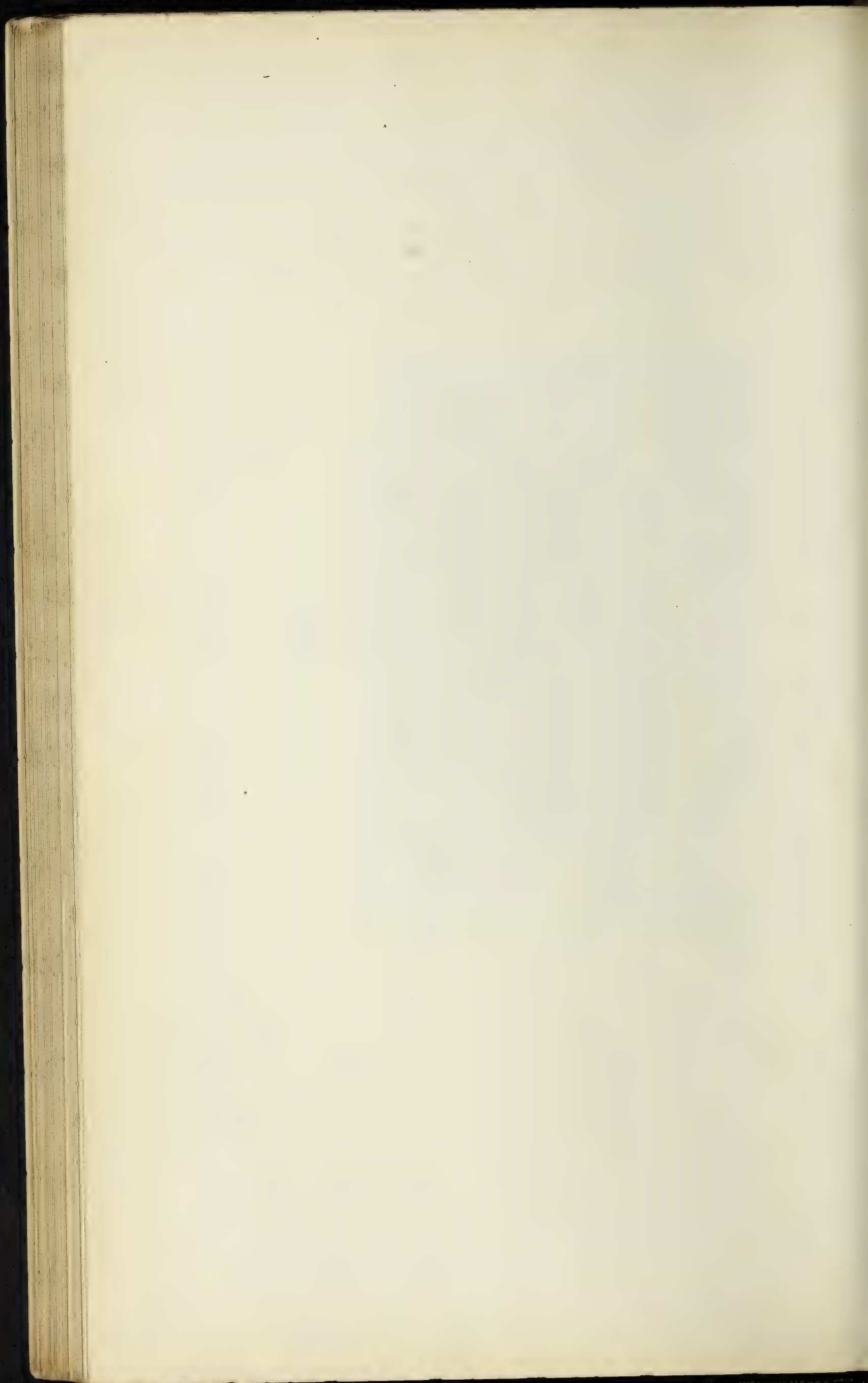


S.S. "UNITY."
GARSTON-ROUEN LINE. See pages 36 and 48.





S.S. "PROGRESS."
GOOLE-CALAIS LINE. See pages 37 and 48.



THE CO-OPERATIVE WHOLESALE SOCIETY LIMITED.



Enrolled August 11th, 1863, under the Provisions of the Industrial and Provident Societies Act, 25 and 26 Vict., cap. 87, sec. 15, 1862.

Business commenced March 14, 1864. Shares, £5 each,
TRANSFERABLE.



CENTRAL OFFICES, BANK, GROCERY AND PROVISION, AND BOOT AND
SHOE WAREHOUSES:

BALLOON STREET, MANCHESTER.

DRAPERY, WOOLLEN CLOTH, AND READY-MADES WAREHOUSES:

DANTZIC STREET, MANCHESTER.

FURNISHING WAREHOUSE:

HOLGATE STREET, MANCHESTER.

BRANCHES:

WATERLOO STREET, NEWCASTLE-ON-TYNE,
AND LEMAN STREET, LONDON, E.

PURCHASING AND FORWARDING DEPOTS:

ENGLAND:

LIVERPOOL, BRISTOL, LONGTON, GOOLE, AND GARSTON.

IRELAND:

CORK, LIMERICK, KILMALLOCK, WATERFORD,
TRALEE, AND ARMAGH.

AMERICA:

NEW YORK.

DENMARK:

COPENHAGEN, AARHUS.

FRANCE:

CALAIS AND ROUEN.

GERMANY:

HAMBURG.

SALEROOMS:

LEEDS, HUDDERSFIELD, NOTTINGHAM, BLACKBURN,
BIRMINGHAM, NORTHAMPTON, AND CARDIFF.

PRODUCTIVE WORKS:

BISCUITS, SWEETS, AND JAM WORKS, AND DRY SOAP WORKS:
CRUMPSALL, NEAR MANCHESTER.

BOOT AND SHOE WORKS:
LEICESTER AND HECKMONDWIKE.

SOAP WORKS:
DURHAM.

WOOLLEN CLOTH WORKS:
LIVINGSTONE MILL, BATLEY.

READY-MADES WORKS:
BATLEY AND LEEDS.

COCOA AND CHOCOLATE WORKS:
116, LEMAN STREET, LONDON.

CORN MILL:
DUNSTON-ON-TYNE.

FURNITURE FACTORY:
BROUGHTON, NEAR MANCHESTER.

SHIPOWNERS AND SHIPPERS:

BETWEEN

GARSTON AND ROUEN;
GOOLE AND CALAIS;
GOOLE AND HAMBURG.

STEAMSHIPS OWNED BY THE SOCIETY:

"PIONEER," "UNITY," "PROGRESS,"
"FEDERATION," "EQUITY,"
AND
"LIBERTY."

BANKERS:

THE MANCHESTER AND COUNTY BANK LIMITED.
THE LONDON AND COUNTY BANK.
THE NATIONAL PROVINCIAL BANK OF ENGLAND.
THE MANCHESTER AND LIVERPOOL DISTRICT BANK.
THE LANCASHIRE AND YORKSHIRE BANK.
THE UNION BANK OF MANCHESTER.

General Committee.

PRESIDENT:

Mr. J. T. W. MITCHELL,
15, John Street, Rochdale.

VICE-PRESIDENT:

Mr. JOHN SHILLITO,
17, Cavendish Terrace, Halifax.

SECRETARY:

Mr. THOMAS SWANN, Beech Villa, James Street, Masborough.

Mr. WILLIAM BATESGreen Lane, Patricroft.
Mr. THOMAS BLANDRashcliffe, Huddersfield.
Mr. E. GRINDROD8, Apsley Street, Keighley.
Mr. E. HIBBERT.....7, Wicken Tree Lane, Failsworth.
Mr. THOMAS HIND3, Grey Friars, Leicester.
Mr. THOMAS KILLON2, Cateaton Street, Bury.
Mr. JOHN LORD16, Steiner Street, Accrington.
Mr. JAMES LOWNDS92, Catherine Street, Ashton-under-Lyne.
Mr. T. E. MOORHOUSE.....*Reporter* Office, Delph.
Mr. ALFRED NORTHMount Pleasant, Batley.
Mr. H. C. PINGSTONEMarket Street, Manchester.
Mr. A. SCOTTON48, Co-operative Street, Derby.
Mr. JOHN STANSFIELD.....Jeremy Lane, Heckmondwike.

* * *

NEWCASTLE BRANCH COMMITTEE.

CHAIRMAN: Mr. T. TWEDDELLCleveland Terrace, West Hartlepool.

VICE-CHAIRMAN: Mr. GEO. SCOTT, Co-operative Society, Fencehouses, Durham.

SECRETARY: Mr. ROBERT GIBSON, 42, Stone Street, Newcastle-on-Tyne.

Mr. MATTHEW BATES.....Blaydon Burn, Blaydon-on-Tyne.
Mr. GEORGE BINNEY.....Red Hill Terrace, Durham.
Mr. ROBERT IRVING.....Woodrouffe Terrace, Carlisle.
Mr. THOMAS SHOTTONCemetery Road, Blackhill, Durham.
Mr. RICHARD THOMPSON ..9, Garden Place, Bishopwearmouth, Sunderland.

* * *

LONDON BRANCH COMMITTEE.

CHAIRMAN: Mr. GEO. HAWKINS, 53, Kingston Road, Oxford.

VICE-CHAIRMAN: Mr. GEO. SUTHERLAND, 78, Maxey Road, Plumstead.

SECRETARY: Mr. HENRY PUMPHREY, Paddock Terrace, Lewes.

Mr. JOSEPH CLAYStratton Road, Gloucester.
Mr. H. ELSEY9, Lynwood Terrace, Lawrence Road, Southsea.
Mr. J. F. GOODEYNew Town Lodge, Colchester.
Mr. GEORGE HINESCroft Street, Ipswich.
Mr. T. E. WEBB ..1, Honeywell Road, Wandsworth Common, London, S.W.

* * *

AUDITORS.

Mr. THOS. J. BAYLIS, Rotherham.

Mr. JAMES E. LORD, Rochdale.

Mr. ISAAC HAIGH, Barnsley.

Mr. THOMAS WOOD, Manchester.

Officers of the Society.

ACCOUNTANT.

Mr. THOMAS BRODRICK, Eccles.

CASHIER.

Mr. A. GREENWOOD, Rochdale.

BUYERS, SALESMEN, &c.

MANCHESTER—GROCERY AND PROVISIONS :

Mr. ISAAC TWEEDALE.
Mr. THOMAS PEARSON.

Mr. GEORGE GARLICK.
Mr. WILLIAM WROOT.

MANCHESTER—DRAPERY :

Mr. JAMES FLETCHER.
Mr. WILLIAM T. ALLITT.

Mr. JOHN SHARROCKS.
Mr. JOHN T. OGDEN.

MANCHESTER—WOOLLENS, BOOTS, AND FURNITURE :

Woollen Cloth.....	Mr. R. GIBSON.
Boot and Shoe	Mr. HENRY JACKSON.
Furniture.....	Mr. T. R. ALLEN.

MANCHESTER—TRAVELLERS :

Grocery and Provisions	Mr. R. TURNER.
Productive Societies and Drapery.....	Mr. JOS. PICKERSGILL.
" " " " ".....	Mr. J. MEADOWCROFT.
" " " " ".....	Mr. THOS. A. RANKIN.

SHIPPING DEPARTMENT :

General Manager.....Mr. CHAS. R. CAMERON.

SHIPPING AND FORWARDING DEPOTS :

Rouen (France)	Mr. JAMES MARQUIS.
Goole	Mr. W. J. SCHOFIELD.
Calais	Mr. WILLIAM HURT.

LONDON :

Tea, Coffee, and Cocoa.....Mr. CHARLES FIELDING.

LIVERPOOL :

Grocery and Provisions

Mr. ARTHUR W. LOBB.

SALEROOMS :

Leeds	Mr. JOSEPH HOLDEN.
Nottingham	Mr. G. T. TOWNSEND.
Huddersfield	Mr. GEO. BARLASS.
Birmingham	Mr. J. KERSHAW.
Northampton	Mr. A. BAKER.
Cardiff	Mr. J. F. JAMES.

LONGTON :

Crockery Depot

Mr. J. RHODES.

NEWCASTLE :

Chief Clerk Mr. H. R. BAILEY.
 Grocery and Provisions Mr. ROBT. WILKINSON.
 " " Mr. T. WEATHERSON.
 Drapery Mr. JOHN MACKENZIE.
 Boot and Shoe Mr. O. JACKSON.
 Furniture and Hardware Mr. J. W. TAYLOR.

BUYERS, SALESMEN, &c.

LONDON :

Grocery and Provisions Mr. BENJAMIN JONES.
 " " Mr. WM. OPENSHAW.
 Drapery Mr. F. G. WADDINGTON.
 Boots and Shoes Mr. ALFRED PARTRIDGE.
 Furnishing Mr. F. E. ODDY.
 Chief Clerk Mr. WILLIAM STRAWN.

BRISTOL DEPÔT :

Mr. C. CUNNINGHAM.

IRISH BRANCHES—BUTTER AND EGGS.

CORK :

Mr. WILLIAM H. STOTT.

KILMALLOCK :

Mr. THOS. G. O'SULLIVAN.

TRALEE :

Mr. JAMES DAWSON.

LIMERICK :

Mr. WILLIAM L. STOKES.

WATERFORD :

Mr. THOMAS J. SHANN.

ARMAGH :

Mr. J. HOLLAND.

NEW YORK (AMERICA) :

Mr. JOHN GLEDHILL. | Mr. JAS. M. PERCIVAL.

COPENHAGEN (DENMARK) :

Mr. JOHN ANDREW.

HAMBURG (GERMANY) :

Mr. WM. DILWORTH.

AARHUS (DENMARK) :

Mr. H. J. W. MADSEN.

LOWER CRUMPSALL BISCUIT, &c., WORKS :

Mr. THOMAS HAYES.

LEICESTER BOOT AND SHOE WORKS :

Mr. JOHN BUTCHER.

HECKMONDWIKE BOOT AND SHOE WORKS :

Mr. J. W. HEMMINGS.

DURHAM SOAP WORKS :

Mr. J. E. GREEN.

BATLEY WOOLLEN CLOTH WORKS :

Mr. S. BOOTHROYD.

BATLEY AND LEEDS :

Ready-made Department Mr. WILLIAM UTTLEY.

" Traveller Mr. J. STEAD.

DUNSTON CORN MILL :

Mr. LEWIS DYSON.

Employees.

NUMBER OF EMPLOYÉS, SEPTEMBER, 1892.

MANCHESTER—General Drapery, Boot and Shoe, and Furnishing			
	Offices		218
	Cashier's Office		15
	Grocery Department.....		140
	Drapery		75
	Shirt Manufacturing.....		24
	Woollen Cloth Department		10
	Tailoring	Cable Street	60
	Boot and Shoe		30
	Furnishing		30
	Shipping		4
	Building		115
	Dining-room		9
	Other		21
			<hr/>
	Total Manchester.....		751
Newcastle Branch			265
„ Building Department.....			45
London Branch			202
„ Building Department			11
„ Tea			292
„ Stables			16
Leeds Saleroom			3
Nottingham Saleroom			1
Birmingham			1
Northampton			1
Bristol Dépôt			39
Cardiff			1
Liverpool Branch—Grocery and Shipping			18
Longton—Crockery Department.....			17
Irish Branches			49
Rouen Branch			4
Goole			13
Calais			7
Garston			2
New York Branch			6
Copenhagen			6
Aarhus			3
Hamburg			4
Crumpsall Biscuit Works			300
Leicester Shoe			2088
Enderby			161
Heckmondwike Shoe Works.....			251
„ Currying Department			49
Durham Soap Works.....			16
Batley Woollen Mill			103
Leeds—Ready Mades.....			130
Batley—Ready Mades			40
Dunston Corn Mill.....			140
Steamships—“Pioneer,” 14; “Unity,” 15; “Progress,” 13; “Federa-)			98
tion,” 18; “Equity,” 19; “Liberty,” 19			
Total.....			<hr/> 5133

Terms of Membership.

TRADE DEPARTMENT.

FOR the information of Societies and Companies not already purchasers from or members of this Society, we give below— (1) our requirements on opening new accounts; (2) particulars of trade terms; (3) terms and conditions of membership; and (4) a few of the advantages accruing from membership.

Any further information will gladly be given on application.

(1) NEW ACCOUNTS.

Societies desiring to open accounts are requested to furnish us with a copy each of their registered rules and latest balance sheet.

If a balance sheet has not been prepared, then the following information should be sent, viz., the number of members; amount of paid-up share capital; whether credit is allowed, and if so, to what extent; the amount of business done, or expected to be done per week.

(2) TRADE TERMS.

With the first order sufficient cash must be remitted to cover the estimated value of the goods ordered; afterwards payment must be made within seven days from date of invoice; all accounts are rendered strictly net.

Business is conducted on these terms, with *registered* Co-operative Societies and Companies only.

Societies in process of formation and whose rules are not yet registered can be supplied with goods on payment of cash with each order.

(3) TERMS AND CONDITIONS OF MEMBERSHIP.

The following extracts from our Rules contain the principal features in connection with membership:—

(a) ADMISSION OF MEMBERS.—(Extract from Rule 5.)

The members of this society shall consist of such co-operative societies or companies (registered under the Industrial and Provident Societies Act, 1876, or under the Companies Acts, with limited liability, or under any law of the country where they are situate, whereby they acquire the right of trading as bodies corporate, with limited liability) as have been admitted by the general committee, and approved by a majority of delegates voting at a general meeting of the society. An application for shares shall be made by a resolution of some general or committee meeting of the society or company making the application, contained in writing and attested by the signatures of the secretary and three of its members. Every society or company making an application for shares shall state the number of its members, and take up not less than three £5 shares for every twenty members, or fractional part thereof, and agree to increase the number annually as its members increase, making the return of such increase at the time and in accordance with its return to the Registrar.

(5) CAPITAL—HOW PAID UP.—(Extract from Rule 9.)

The capital of this society shall be raised in shares of five pounds each, which shall be transferable only. Every society, on its admission, shall pay the sum of not less than one shilling on each share taken up. Each five pounds so paid shall constitute one fully paid-up share; but no dividend or interest shall be withdrawn by members until their shares are paid up. Any member may pay up shares in advance. After having received the consent of a special meeting, the whole or any part of the share capital may be called up by the general committee on giving notice to that effect.

(c) FORM OF APPLICATION FOR SHARES.

APPLICATION FOR SHARES.

Folio.....

The.....

Co-operative Society Limited.

TO THE DIRECTORS OF THE CO-OPERATIVE WHOLESALE
SOCIETY LIMITED, 1, BALLOON STREET, MANCHESTER.

Gentlemen,

Whereas, by a Resolution of the.....
Co-operative Society Limited, passed by the*.....
at a Meeting held on the.....day of.....it was
resolved that the Society, which consists of.....Members,
agree to take up.....Shares (being not less than Three
Shares for every Twenty of our Members, or fractional part
thereof) in the Co-operative Wholesale Society Limited, and
annually to increase our Shares at the time and in accordance
with our return to the Registrar, and to accept such Shares on
the terms and conditions specified in your Rules.

.....189

Attested by }
..... } Three Members.
..... }

.....Secretary.

* Members, Committee of Management, or Directors.

(4) ADVANTAGES ACCRUING FROM MEMBERSHIP.

- (a) The liability of each society member is limited to the amount of its shares.
- (b) Members of this Society receive double the rate of dividend on purchases to non-members.
- (c) Share capital receives interest after the rate of £5 per cent per annum.
- (d) Each society composing the "Wholesale" may nominate one representative for every 500 of its members to represent it at the General or Branch Quarterly Meetings, or other Special Meetings which may be convened from time to time, and thus have a direct influence and voice in the control and management of its affairs. The nomination and election of its officers for General and Branch Committees, Auditors, and Scrutineers are effected by means of nomination and voting papers, which are sent to all shareholding societies to be filled up.
- (e) A merely nominal payment secures membership, a deposit of 1s. per share upon application being only required; the dividend on purchases and interest on share capital being credited to share account until paid up.

Those societies not already federated with the "Wholesale" should at once join and thus secure the advantages to themselves and the co-operative movement generally which its extensive and varied operations are intended to confer.

Business Notices.

ALL LETTERS TO BE ADDRESSED TO THE SOCIETY, AND NOT TO INDIVIDUALS.

WE would especially impress upon Societies' Managers and Secretaries the necessity of complying with the following regulations, in order to facilitate the despatch of Goods, to ensure promptitude in the answering and classification of letters, and to prevent disappointment.

LETTERS.

ALL letters must be addressed to the Society, and not to individuals.

Addressed Envelopes are supplied at cost price.

Communications for the following Departments, and relating to the subjects named, should always be made on separate forms or sheets of paper, viz. :—

- (1) Bank and Cashier's Department.
- (2) Accountant's Department.
- (3) Grocery and Provision Department—Orders only.
- (4) " " " Application for Samples only.
- (5) Drapery Department—Orders and Applications for Samples.
- (6) Boot and Shoe Department—Orders and Applications for Samples.
- (7) Woollen Cloth " " " "
- (8) Furnishing Department—Orders and Applications for Samples.
- (9) Advices of Returns.
- (10) Claims, delays, complaints, &c., for all Departments.

Although each of the above classifications requires a separate form, they should all be enclosed under one cover, and addressed to the Society.

At the Central Office, in Manchester alone, the number of Letters, Orders, &c., received daily is enormous. To effectually deal with these communications some division into departments is absolutely necessary.

These classifications have therefore been adopted, and Societies are asked to assist by seeing that their communications are despatched in accordance therewith, as when subjects included in more than one of these divisions are dealt with on one form, much labour is involved in re-writing the portions required to be separated.

ORDERS FOR GOODS.

The name of the Society and the Station to which the Goods are to be forwarded should be written at the head of each order.

ORDERS should contain the Price or Brand of each Article wanted.

Delays would often be prevented by noticing in which column in the Price Lists (Manchester, Newcastle, London, &c.) the Goods are quoted, and posting the Orders direct to the Central, or branches named, as the case requires.

As regards "Direct Quotations," notwithstanding that there are many instances where minimum quantities are fixed, orders are frequently received for less than the stipulated quantities. This necessitates correspondence, and in cases of urgency entails inconvenience to Societies, which would be obviated by carefully noticing the Price List when ordering.

It is desirable that the Forms we have specially prepared should be used in sending Orders.

1. Grocery, Drapery, Woollens, and Furnishing Department.
2. Tailoring (Bespoke), with instructions for measurement.
3. Boot and Shoe Department.
4. " " " (Bespoke), with instructions for measurement.

Books containing 50 Forms, with Duplicates, will be sent free on application. Orders for each Department should be made out on separate forms.

CONSIGNMENT OF GOODS.

WHENEVER delays occur in the delivery of Goods, Societies will please communicate with the carrier at their end, in addition to informing us.

To prevent any misunderstanding as to who is responsible for the safe delivery of Goods, we would state that when Goods are Carriage Paid we undertake their safe delivery; but when the Carriage is Not Paid, the Carrier is responsible to the Consignees, who, before taking delivery of any Goods, should carefully examine the same, and at once claim for any loss or damage sustained in transit.

EMPTYES.

EMPTY packages should be returned carefully packed, and fully and correctly consigned.

Each package should have a *label or direction card attached, stating the contents, the name of the Society forwarding them, and the name and address of their destination.*

Empties should be returned direct to the manufacturer from whom the Goods were sent. When returned to Manchester or the Branches, additional expense and trouble are incurred in re-consigning them to their proper destination.

A few manufacturers pay carriage on returned empties; where this is done Societies will consign carriage forward, in all other cases carriage should be paid. A list of firms who pay carriage may be obtained on application at the Central Offices.

In all cases an advice giving full particulars of the empties returned (viz., the kind, the quantity, the numbers, the price charged, and reference to invoice where charged) should be immediately posted to us, as unless this is done our rule is not to allow credit for them.

We have a book, which we send free on application, containing 50 forms, with duplicates, specially prepared for this purpose, which Societies are recommended to use.

The importance of carrying out these instructions will be seen when Societies are informed that the Railway Companies seldom make deliveries of empties until they have a complete load, and under such circumstances it is almost impossible to ascertain from what Societies they have been received, unless full particulars are given.

In many cases Societies do not fully carry out these instructions, consequently we are continually receiving empty packages which we are not able to credit because we do not know from whom they have been returned. This is a loss which we are desirous Societies should not incur; we therefore point it out to them so that the necessary precautions may be taken to avoid it.

GOODS CONSIGNED AS EMPTIES.

WE cannot hold ourselves responsible for any Goods that may be returned consigned as empties, as any claim made on the Railway Companies for missing Goods under such circumstances would not be entertained.

STATEMENTS OF TRADE ACCOUNTS.

WEEKLY STATEMENTS

ARE sent out to all Societies doing business with us, showing Total of Goods Invoiced, Cash Received, and Allowances made during the week, and Balance, if any, at the week end.

These statements afford a great check on Societies' books, and Secretaries are requested to compare each one as received with their books, and to report to us particulars in case of any discrepancy.

QUARTERLY STATEMENTS

Are issued immediately after our Books are made up for the Quarter.

They are in form similar to the Weekly Statements, and must be returned, duly certified if correct, to our Auditors, who require them as an independent check as to the correctness of our accounts.

We rely upon Societies giving prompt attention to these statements, as the early issue of our Balance Sheets depends to an extent on their immediate return.

In case of any discrepancy, details should be at once given or applied for, but if correct, the Statement should be forthwith signed and returned to the Auditors, in the envelope sent out for that purpose.

SHARE AND LOAN PASS BOOKS.

THESE should be sent to the Head Office (1, Balloon Street, Manchester) *every* Quarter, viz., in the Second Week of March, June, September, and December, for the purpose of having the previous quarter's Interest and Dividend entered therein. Societies requiring information respecting the amount of their Share or Loan Capital are requested to send their Pass Books for the amount to be filled in, instead of sending for Statements.

When Shares are paid up the Share Book need not again be sent until a further allotment is made.

SOCIETIES' BALANCE SHEETS.

WE especially desire those Societies who have not already done so to send us a copy of their last Balance Sheet, stating on it the number of their Members; also, a copy of their rules.

Trade Department.

CASH ARRANGEMENTS.

WE beg to call the attention of Societies to the arrangements specified below, which will give facility and security when making remittances to this Society :—

1. **All cash must be addressed to the Society only,** and not to individuals, nor to the committee or auditors.

2. **CHEQUES and DRAFTS** to be made payable to the CO-OPERATIVE WHOLESALE SOCIETY LIMITED. Post-office orders must be made payable to ABRAHAM GREENWOOD. Drafts drawn in favour of this Society must be made payable on demand; other drafts when remitted to us must have reached maturity. All drafts, if possible, should be made payable either at London or Manchester.

3. Societies are respectfully requested, when drawing cheques in our favour, to do so in full, viz., Co-operative Wholesale Society Limited, without any abbreviation or variation whatever.

4. In forwarding half notes societies should state whether they are first or second halves; the latter half notes should be forwarded immediately on receipt of our acknowledgment of the first. Societies not receiving acknowledgment for first or second half notes in due course of post, will oblige by calling attention to the omission.

5. **Care should be taken to advise immediately when a remittance is made to us, stating the amount and the name and place of the bank or branches through which the remittance is made.**

6. Remittances made through a bank in all cases should be done in the name of the society sending cash to us, and not in the name of a person.

7. Arrangements for the remittance of cash will, in the first instance, be made by this Society, and afterwards arrange with societies availing themselves of these facilities for paying cash to us.

8. Societies would greatly oblige, and thereby facilitate the business of this Society, if they will, when advising cash remittances, or any matter relating to payment of cash, do so on a separate sheet of paper.

9. **LOANS, WITHDRAWAL OF.**—Societies, when requiring to withdraw their loans, are respectfully requested to **apply at the Head Office, Manchester,** for an official form, which is provided for and supplied to societies for the purpose of enabling them to withdraw loans and to state definitely the amount of loan they wish to withdraw. Societies will please note this special request. The Wholesale Society will give due notice when they are prepared to accept new loans.

Bank Department.

CURRENT ACCOUNTS

OPENED ON THE PLAN USUALLY ADOPTED BY OTHER BANKERS.

CUSTOMERS keeping accounts with the Bank by arrangement may have moneys paid to their credit at the

HEAD OFFICES,

BALLOON STREET, MANCHESTER,

AND AT

THE BRANCHES,

WATERLOO STREET, NEWCASTLE-ON-TYNE,

AND

HOOPER SQUARE, LEMAN STREET, WHITECHAPEL, LONDON, E.

CORRESPONDENTS :

THE PIONEERS' SOCIETY, TOAD LANE, ROCHDALE;
THE INDUSTRIAL SOCIETY, SCHOOL STREET, OVER DARWEN;
THE CO-OPERATIVE SOCIETY, HIGH STREET, LEICESTER.

CORRESPONDENTS OF THE FOLLOWING BANKS:

MANCHESTER AND COUNTY BANK,
LONDON AND COUNTY BANK,
NATIONAL PROVINCIAL BANK OF ENGLAND,
UNION BANK OF MANCHESTER,
LANCASHIRE AND YORKSHIRE BANK,
MANCHESTER AND LIVERPOOL DISTRICT BANK,
AND
UNION BANK OF SCOTLAND LIMITED.

The Banking Turnover is £30,000,000 per annum.

Grocery and Provision Departments.

A COMPLETE PRICE LIST of the goods dealt in is issued weekly, the prices being fixed for the day of issue only. These Weekly Lists, which are sent to Co-operative Societies with whom we do business, contain reports and opinions as to the state of the markets, as regards some of the principal articles.

The reports are intended for, and calculated to be of service to, Committees and Managers of Societies, in pointing out the tendency of the markets, and when to buy to advantage.

The following is a brief *résumé* of the chief commodities, and how the "Wholesale" is circumstanced in relation thereto:—

BUTTER AND EGGS—IRISH.

THE arrangements in force for conducting this portion of the business are remarkably well adapted for supplying the same on the most favourable terms.

There are six buyers, attending markets at Cork, Limerick, Kilmallock, Waterford, Tralee, and Armagh. These buyers are gentlemen of the first experience in the trade, and are under the immediate and direct control of the Society—not being merely employed as agents or buyers on commission.

The buyers, although taking up their residences at the places named, attend all the best and noted markets within a radius of twenty or thirty miles, and thus it will be seen that the area covered by their operations embraces a great proportion of the south of Ireland, and some of the most fertile districts of that country.

This Society is by far the most extensive purchaser and shipper of Irish Butter.

BUTTER AND EGGS—DANISH.

THE same remarks may be made in this respect as in the case of Irish Butter and Eggs. We have our own buyer stationed at Copenhagen, and he purchases direct from farmers who are considered the best producers in both Denmark and Sweden, and contracts with them for a weekly supply of all they make.

Before shipment, all goods are carefully examined by our representative.

Societies should encourage this Branch by giving us weekly orders for shipment direct, and thus save the cost of warehousing and of carriage from Manchester.

BUTTER—KIEL, AND GERMAN EGGS.

OUR arrangements for the purchase of these are similar to those at Copenhagen.

Our own buyer is located at Hamburg, and buys firsthand from the farmers and producers.

Our ready-money system of doing business commands the best terms, and enables us to do a very extensive and satisfactory trade in these articles.

BUTTER AND EGGS—FRENCH.

SUPPLIES of these are obtained fresh weekly, and are carefully selected for the Society, by competent and experienced men, from the best dairies and districts in France.

AMERICAN BUTTER, CHEESE, BACON, HAMS, LARD, FLOUR, APPLES, &c., &c.—NEW YORK BRANCH.

Two buyers are located at New York, whose duty it is to purchase and export the articles sold by the Society which are grown and manufactured in the United States and Canada.

The business done by the Society, and the Capital always at its command, enables its representatives to enter the markets in an independent manner, and places them in a pre-eminent position to exact terms of the first order. These conditions, and the consequent absence of the intermediate dealers, qualify the Society to transfer the goods from where they are produced to the consumer with the least possible addition to the cost.

CHESHIRE CHEESE.

THE Society's buyers visit the best dairies and farms in Cheshire where this is made, and purchase it from the farmers on the spot.

YEAST.

THIS is imported by the Society direct from the best distillers at Schiedam, Hamburg, and France. It is received in the port of Hull twice in each week—*i.e.*, Mondays and Thursdays—and distributed from there to the Society's customers.

SUGAR.

THE large purchases which the Society is able to make, place it in the best position for securing the utmost advantages from the refiners.

In addition to this, the Society's own buyers are in the centre of operations in Liverpool, London, Greenock, and New York, and are able to obtain information at first hand.

There is a telephone connecting its Liverpool offices with the Central establishment at Manchester, and the buyer in Liverpool is thus in constant telephonic communication with the Central buyer at Manchester, who, being in receipt of the latest and most reliable reports, is enabled to decide which is the most favourable time for making purchases.

Demeraras and other Raws are sampled on arrival, and the most suitable lots selected.

FLOUR, GRAIN, &c.

THE finest brands of Hungarian Flours are bought direct from the millers in Hungary. German and Danish Flours are purchased by our own buyers, situated at Hamburg and Copenhagen respectively. German Flour is imported by us in our own steamers.

The Society's buyers in New York make very extensive purchases of Flour, direct from the millers, in both the United States and Canada.

Grain is bought in large quantities, "to arrive," and Meal of all kinds from the mills direct.

DRIED FRUIT.

OUR Dried Fruit buyer goes annually to Greece and Turkey at the season when the fruits are being gathered, and visits the vineyards where the fruits are drying, in order to select the Samples of Currants, Sultanas, and Figs most suitable for Co-operative Societies. These are bought direct from the producer, thereby saving the middlemen's profits, and we get a better selection than could otherwise be obtained.

POTATOES, ONIONS, APPLES, &c.

THERE is a special buyer for these goods, who travels over the districts known to produce the best sorts, and they are bought direct from the farmers when it can be done with advantage. Our buyer also regularly attends the Liverpool Green Fruit Auctions.

Purchases to a very large extent are also made in France, Belgium, and Germany, and the goods are imported to Goole and Garston by the Society's own steamers, which ply regularly between Calais and Goole and Hamburg and Goole on the East, and Rouen and Garston on the West Coast.

BISCUITS, SWEETS, AND DRY SOAPS.

THESE goods are manufactured by the Society at their Works, Crumpsall, near Manchester. When impartially judged, the quality compares most favourably indeed with the goods made by other houses of older standing, and devoted to the special manufacture for a long period.

SUNDRIES.

SOME of the other articles in which the Society deals largely are—Preserved Meats, Beef, Mutton, Fish, Salmon, Sardines, Lobsters, and Tinned Fruits.

Preserves and Marmalades; Rice, Sago, and Tapioca; Soaps, Soda, Seeds, Starch, and Blues; Syrup and Treacle; Tobacco and Snuffs.

Mustard, Matches, Ginger, Pepper, and Spices; Eggs; Cocoas and Chicory; Candles.

Candied Peels; Burning Oils, Hair and Scented Oils; Black Lead, Blacking, Baking Powder, Oatmeal, Paper and Paper Bags, Patent Medicines, Pickles, Sauces, &c., &c., &c.

Tea, Coffee, and Cocoa Department,

LEMAN STREET, LONDON, E.

WE have a buyer on the London Market whose exclusive duty it is to select and purchase Teas, Coffees, and Cocoas direct from the Importers.

The excellence of this arrangement, whether viewed from an economical point, or from that of enabling us to efficiently supply Societies with all the numerous varieties and qualities they may desire, is too apparent to need illustration.

Our unlimited command of money and unequalled organisation places us in a position for doing this trade superior to that of any other house.

ASSAM AND OTHER INDIAN TEAS.

THESE are made a special study. Year by year they are increasing in favour with the public; and their greater pungency and strength, as compared with China Teas, are likely to make them still further popular.

CEYLON TEAS.

THE most enterprising of the planters in the Island of Ceylon have turned their attention to growing Tea on their estates, with the most gratifying results.

The quality produced supplies a need that has been most urgently felt, viz., Tea possessing the flavour of China Tea without its weakness, and the fulness of Indian Tea without its astringency.

These Teas are rapidly increasing in favour, and the consumption of 1892 shows a very large excess over 1891.

CHINA TEAS.

THERE is a continued decrease in the consumption of these Teas, but nevertheless there are many who prefer their peculiar delicate flavour to the strength and pungency of those from India and Ceylon.

RED LEAF CONGOUS.

THESE have been cultivated with much more care than for several seasons past; SEU MOOS and PANYONGS especially showing very good quality. As with North Country Teas, much lower rates have been accepted, which have had the effect of bringing them much more in favour with the home trade.

BLACK LEAF CONGOUS.

THE crop generally is a very good one, consisting principally of medium Teas with good useful liquors, and, as the Chinese have had to take much lower prices this season than formerly, they compare favourably with other growths and have gone fairly well into consumption.

Most of the fine chops have again gone to Russia.

SCENTED TEAS.

THESE are well scented but are badly made, being in many cases very dusty.

GREEN TEAS.

THESE again show a large decrease in consumption. The quality generally is rather poor.

BLENDED TEAS.

THE art of blending is now carried to a high pitch of perfection, and to work it successfully requires not only a knowledge of the true affinities of the various growths of India, China, and Ceylon, acquired by a long apprenticeship to tea tasting, but ample capital, large premises, suitable machinery, and a competent staff of well-instructed employés. These have been provided for this section of our Tea and Coffee business.

Extreme care is taken to suit all tastes and districts, and everything that can be thought of to make our arrangements, if possible, still more perfect, will be done.

BULK MIXED.

THESE are packed in cads, half chests, and chests. The saving of capital and labour, the greater efficiency and satisfaction resulting from scientific blending, and the numerous grades supplied by us, is causing a largely-increased demand, and is making them very popular.

CHINA PACKET TEAS.

IN addition to the excellence of the blending, we are making extra efforts to turn our packets out of a design and appearance that shall command attention and attract the consumer.

Everyone will admit the superiority in appearance of a handsome packet to the ordinary parcel turned out by the shopman when the Tea is weighed over the counter.

By careful attention to the economy of labour, we are able to supply packets, in large and beautiful variety, at a cost less even than would be incurred if made up in the ordinary way in the Store. In order to meet the requirements of those who prefer the delicate flavoured China Teas, or who cannot drink the strong pungent Indian and Ceylon Teas, we have introduced a pure China Tea in packets.

INDIAN PACKET TEAS.

As we have mentioned before, Indian Teas are rapidly increasing in public favour, and, instead of being mixed with China Teas, are now being extensively used by themselves, so to meet these requirements we have introduced two Indian Packets, one a pure Souchong and the other a pure Pekoe blend.

CEYLON PACKET TEAS.

As these Teas are rapidly and deservedly growing in public favour, on account of their strong, rich, and delicious flavour, we have introduced two Ceylon Packet Teas. We warn our readers that a great many mixtures are offered as Pure Ceylon Teas in leaden packets, and represented as being imported direct from Ceylon in this form. Teas offered in such packets should be avoided, as the finest Ceylon Teas are seldom so imported.

COFFEES.

PLANTATION CEYLON CROP is about the average both for quantity and quality. Prices at one time reached very high limits in consequence of strong buying on the part of Australian Colonies.

EAST INDIA CROP is again inferior in quality as well as being short in weight.

COSTA RICA and other Central American kinds show marked decrease in shipments of finer sorts, whilst in lower qualities we have had larger supplies re-shipped from New York, the Exchange being favourable.

RIO and SANTOS CROPS are expected to be below the average.

RAW COFFEES.

OUR arrangements for the supply of all kinds in use in the home market are as efficient as they can be possibly made.

Samples, both in the raw and roasted state, are sent with all quotations.

ROASTED COFFEES.

WE have now roasting machinery both in London and Manchester, fitted with all the latest improvements.

These enable us to supply the freshly-roasted article in the most expeditious manner; and great care is taken to finish off the berry to suit the particular requirements of customers.

PACKED COFFEE.

GREAT quantities of rubbish have been, and are being, sold under different fancy names. The extraordinary proportions the demand for these articles has assumed have led the Government to impose a special tax on all mixtures, so as to compensate for the loss of revenue on Coffee caused by their consumption.

This will now put the honest trader on a fair footing, and with the great advantage to the consumer that he can make sure of getting a really good and pure article at a reasonable price.

We therefore now sell Coffees of different grades and qualities, both pure and mixed with Chicory, at prices which will be sure to command a good sale.

Our excellent machinery, our economical arrangements, the large scale of our operations, and the well-known beneficial results of division of labour, will enable us to supply Societies cheaper and better than it is possible for them to do for themselves.

COCOA AND CHOCOLATE.

IN order to give Societies the opportunity of getting their supplies at the lowest possible cost, we have commenced the production of the various kinds of Cocoa and Chocolate most in demand.

The greatest care is exercised in the manufacture, ingredients of the best quality only being used. The works are fitted with efficient and modern machinery. The Society is thus in a position to manufacture all classes of Cocoas and Chocolates showing better quality and value than any others in the market.

Special attention is drawn to the following :—

PURE CONCENTRATED EXTRACT IN TINS.

THIS Cocoa is similar in character to the best of the well-known Dutch Cocoas. It possesses great strength, combined with exquisite flavour, and at the same time is most economical in use. We claim for this Cocoa that it is at least as good as any other maker's, at the same time being considerably lower in price.

PURE CONCENTRATED ESSENCE IN PACKETS.

A PREPARATION of the finest selected Cocoa nuts from which the greater part of the fat has been extracted; *contains no sugar and no starch*. With this powder can be made a cup of Cocoa thin in body, like Tea and Coffee, but with far more nutritive qualities than either of these.

PREPARED BREAKFAST COCOA,

MADE of the finest grown nuts and mixed with such other ingredients of the best quality as are necessary to produce a high-class powder, soluble and easy of digestion.

HOMŒOPATHIC COCOA.

WE make three qualities, each of which will be found not inferior to the Cocoas usually sold by this name.

PEARL COCOA.

GREAT care is taken to produce this popular Cocoa in the best form, and the constantly increasing sales show our efforts to have been successful.

ROCK CHOCOLATE.

A PREPARATION of finest Nibs and best Loaf Sugar; specially recommended.

The following also are made, each in various qualities:—

ROCK COCOA, FLAKE, COCOA NIBS, &c.

CHOCOLATE CONFECTIONERY.

WE are now turning out large quantities of this article in various forms of $\frac{1}{2}$ d., 1d., and 2d. Cakes, Drops, also Creams and Cream Cakes, and many other varieties of Chocolate Confectionery.

Societies who have not yet tried these are strongly recommended to do so, for, whilst being very wholesome and nutritious both for children and adults, the sale will be found to be a profitable source of revenue, which Societies may as well secure for themselves as leave to the neighbouring confectioner. In our price list are quoted over twenty different sorts of Eating Chocolates to select from.

Drapery Department.

CENTRAL SALEROOM AND WAREHOUSE:

DANTZIC STREET, MANCHESTER.

NEWCASTLE BRANCH SALEROOM AND WAREHOUSE:

WATERLOO STREET, NEWCASTLE-ON-TYNE.

LONDON BRANCH SALEROOM AND WAREHOUSE:

LEMAN STREET, LONDON, E.

THE especial attention of Societies is called to the above Department, as we feel sure, if they will only give us a fair comparison, they will find we can do as well for them as any other house in the trade. The Stock consists of—

HOSIERY

OF EVERY KIND AND MAKE.

Wools, Worsted and Yarns (by the best spinners), Linen and Paper Fronts and Collars, Cuffs; Kid, Wool, Lisle, and Silk Gloves; Wool, Union, and Oxford Shirts; Duck Jackets; Men's and Boys' Hats and Caps.

HABERDASHERY AND SMALLWARES

OF EVERY DESCRIPTION AND MAKE.

Silk and Velvet Buttons, Trimmings, Ribbon Velvets, &c.

MILLINERY DEPARTMENT.

We beg to call especial attention to this Department, and would ask your hearty support. The Stock is well assorted, and consists of Felt and Straw Hats, Plain and Fancy Straw Bonnets, in all the newest shapes; Ribbons in

Silk, Satin, and Velvet, all shades; Feathers in Ostrich, Fancy Wings, Birds, Ospreys, &c.; French and English Flowers, rich new shades, mounted and unmounted; Silk and Cotton Laces, Spot Nets, Embroidered Capes, and Leises; Ornaments, newest designs in Jet, Steel, &c.; Silks, Velvets, and Plushes; Steel, Jet, and Gold Millinery Trimmings, newest styles; Trimmed Millinery, Black and Coloured; Children's Millinery, in Hoods, Hats, and Bonnets.

MANTLES.

We keep a well-assorted Stock, from the best English, French, and German manufacturers.

FANCY GOODS.

Ladies' and Gents' Scarfs, Ribbons, Laces, Stays, Corsets; Umbrellas in Silk, Alpaca, Gloria, Dagmar, and Satin.

DRESS DEPARTMENT.

Black and Coloured Merinos, French Twills, Sateens, Scotch and German Plaids, Black and Coloured Silks and Velvets.

Scotch and Yorkshire Shawls, Wool Handkerchiefs, Felt and other Skirts, &c. Lace, Leno, and Harness Curtains and Blinds, Wool, Damask, &c.

MANCHESTER DEPARTMENT.

This Department comprises every kind of Scotch, Irish, and Barnsley Linens; Bleached Calicoes, Sheets, and Sheetings; Oxford, Harvard, and other Cotton Shirtings; Silesias, and every class of Dyed and Printed Linings; Prints, Cretonnes, Damasks, Window Hollands, Table Covers, Toilet Quilts, Toilet Covers, Table Baizes, Leathers, &c., &c.

The Stocks are bought from the best manufacturers only, and the finish in all cases is carefully attended to. All Goods are sold under their correct quality and numbers, and the widths and lengths guaranteed. These facts should always be considered when comparing the "Wholesale's" prices with those of other firms.

GREY DEPARTMENT.

Wigans, Mexicans, and Twills in various widths and qualities; Yorkshire, Lancashire, and Saxony Flannels; Bath, Bury, and Twill Blankets; Bleached and Grey Sheets; Alhambras of every kind and in all sizes; Union and Wool Shirtings, Linseys, Kerseys, Lambskins, Down Quilts, &c.

Woollen Department,

DANTZIC STREET, MANCHESTER.

WOOLLENS.

IN THIS DEPARTMENT THERE IS ALWAYS A FINE
SELECTION OF THE NEWEST STYLES IN
WOOLLEN AND WORSTED COATINGS, TROUSERINGS,
AND SUITINGS
OF THE BEST QUALITY AND VALUE, ALL OF WHICH ARE MADE
AT OUR OWN MILLS.

READY-MADES

IN MEN'S, YOUTHS', AND BOYS' GARMENTS,
OF EVERY DESCRIPTION AND PRICE.

TRIMMINGS.

BLACK AND COLOURED SILESAS, STRIPED SILESAS AND
SATEENS,

IN ALL COLOURS AND DESIGNS.

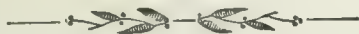
BUCKRAMS, CANVASES, JEANS, POCKETINGS,

BLACK AND COLOURED ITALIANS AND SERGES
AT ALL PRICES.

For choice quality and value this department cannot be
beaten by any house in the trade, and merits the support
of every society.

Furnishing Department,

HOLGATE STREET, MANCHESTER.



ILLUSTRATED CATALOGUE AND PRICE LIST

SENT FREE OF CHARGE TO ANY SOCIETY ON APPLICATION.



THE STOCK IN THIS DEPARTMENT

Consists of Sideboards, Suites, Bassinettes, Tables, Chairs, Stools, Wardrobes, Bookcases, Chiffonniers, Chests of Drawers, Toilet and Pier Glasses, Sofas, Couches, Bedsteads (in wood or iron), Hat Stands, &c.

HARDWARE DEPARTMENT.

Buckets, Saucepans, Kettles, Coal Scuttles, Fenders, Fire Irons, Shovels, Umbrella Stands, Stair Rods, Tin Washups, Breakfast Cans, Milk Cans, Lading Cans, Bread Tins, Dripping Tins, Bellows, Washing and Wringing Machines, Brushes, Cutlery, &c., &c.

CARPET DEPARTMENT.

Kidderminster, Brussels, Tapestry, and Hemp Carpets, Tapestry, Brussels, Wool, Hemp, and Berlin Stair, Cocoa Mats, Cocoa Matting, Twine Matting, Axminster, List, Beam, and Skin Rugs and Mats, Oil Cloth, Painted Back Cloths, Hessian Back Cloths, Linoleums, &c., &c.

FANCY DEPARTMENT.

Hair, Clothes, Tooth, and Nail Brushes, Combs, Satchels, School Bags, Travelling Bags, Albums, Watches, Alberts, Guards, Spectacles, &c., &c.

MACHINERY, SHOP FITTINGS, &c.

We supply Messrs. Crossley Brothers' "Otto" Gas Engines, and all other kinds of Machinery and Shop Fittings required by societies, and are also in a good position for supplying Safes, &c.

Crockery Department, L O N G T O N .

OUR Depôt in the Potteries is stocked with a choice selection of goods of the best manufacture suitable for the requirements of societies. At the same time we beg to call your attention to the following advantages we possess over manufacturers :—

FIRST :

We can supply crates of mixed goods of all kinds—

Earthenware, China, Jet, Rockingham, Glass, Yellow and
Brown Ware ; also Fancy Vases, &c.

SECONDLY :

With the exception of Tea, Toilet, and Dinner Patterns not stocked, we can supply all general articles and goods from our list promptly, which manufacturers cannot continuously do, as they are certain to run out of stock of some kind very often.

THIRDLY :

We can supply very small quantities of each article—which, with the above-mentioned promptitude, will enable you to keep a very small stock, and place it within the power of the smallest store to keep crockery to advantage.

FOURTHLY :

By combining our resources of capital with the services of a buyer on the spot we are able to purchase goods from the *best makers*, and supply them on as good terms as can be got by dealing direct with the manufacturers, and in greater variety.

FIFTHLY :

In dealing direct there is generally a heavy charge for crates, which will be avoided, as we find crates and credit on return as per page 6 in list.

We have added Sanitary Goods, such as Closets, Lavatory Basins, &c., &c., and can strongly recommend these for price and quality.

We trust that these considerations will induce every society to add crockery to their other business ; and as we keep a number of crates on hand ready packed, consisting of China, Earthenware, Rockingham, and Jet Teapots, &c., suitable for beginning in this branch of trade, we shall be pleased to forward one immediately to any society which will intimate their willingness to give it a trial. For assortment of crates, &c., see our Price List, free to any society on application.

N.B. — All orders to be sent direct to Longton.

Grumpsall Works.

MANUFACTURERS

OF

Biscuits, Sweets, Jam and Marmalade,
Dry Soap Powder, &c.

Warehouses:

BALLOON STREET, MANCHESTER;
WATERLOO STREET, NEWCASTLE-ON-TYNE;
LEMAN STREET, LONDON, E.;
AND
CHRISTMAS STREET, BRISTOL;
WHERE ALL ORDERS MUST BE SENT.

NO supply some of the requirements of the Retail Stores, this Society established these Works in 1872. By the rules of the Society the custom of the private trader is refused, and none but registered Co-operative Societies are supplied. The Retail Stores, members of the Wholesale Society, are the proprietors of these Works, and, as such, the exclusion of private trade is a regulation made by them. We have, therefore, a just claim upon the Stores that they should support their own Works, whilst we acknowledge that they have a claim upon us to supply a pure and serviceable article, as good and as cheap, of its kind and quality, as can be had elsewhere.

THE BISCUITS ARE MADE OF THE PUREST MATERIALS,

Nearly all the flour used being of co-operative manufacture. The machinery employed is of the latest style and most perfect character. We have recently made considerable additions in this department—our productive capacity being now thrice as great as it was before. The Biscuits produced are such that we confidently invite comparison, and urgently solicit all Co-operative Societies to give them a trial.

IN THE MAKING OF SWEETS

We boil the best of sugar (all cane); employ the best skill; use only vegetable colouring matter, all of which is perfectly harmless; and we can confidently challenge analysis. Our Sweets need only be tried to be approved.

LOZENGES.

Our machinery is of the newest and most approved construction for the making of Lozenges in all the varieties mostly in request. The difference in value between one Lozenge and another depends almost entirely on the quantity, strength, purity, and delicacy of the flavouring used. In these particulars we aim to excel, and we invite comparison. We trust our friends will give this department a trial, and have no doubt the article produced will bear comparison with the productions of the best makers.

JAMS, JELLIES, AND MARMALADE

Are made of the best fruit procurable, and Cane Sugar is used exclusively.

CITRATE OF MAGNESIA, AND SHERBET, OR LEMON KALI,

Are sometimes pressed by makers upon the attention of the Stores as "a special cheap quality." They can, however, be made "cheap" only by keeping out the Acids, which are expensive, and putting in more sugar. This sort of cheapness makes the article more agreeable to some tastes, but certainly much less useful and less costly. We aim at making the C.W.S. Citrate and Sherbet the best value.

"WHEATSHEAF" BAKING POWDER,

In 1oz. and 2oz. Packets,

Has been tested in practical use with that of the best makers, and with favourable results.

C.W.S. "WHEATSHEAF" BLACK LEAD,

In 1oz. Oblong Blocks, and 1oz. and 2oz. Round Blocks.

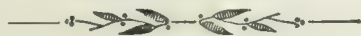
We Block the very best of Lead, and our produce cannot be excelled in the brilliancy and polish it imparts. Our Loose Black Lead, in 1oz. and 2oz. packets, we can confidently recommend.

DRY SOAP.

In the manufacture of Dry Soap it is usual to introduce cheap ingredients which have no cleansing properties, and only serve to increase the bulk and the weight, thus catching the unwary by giving them for their money a large packet of small value. We can assure our friends that we use no ingredients which have not valuable detergent or cleansing properties, and our Dry Soap will bear comparison with that of the best makers. This article has been subjected to the test of analysis by the Manchester City Analyst, and his figures show that for detergent value or cleansing power the C.W.S. Dry Soap Powder stands in front when compared with the analysis of three other samples from makers of highest repute and longest standing.

Wheat Sheaf Works,

WIGSTON ROAD, LEICESTER.



Warehouses :

BALLOON STREET, MANCHESTER ;

WATERLOO STREET, NEWCASTLE-ON-TYNE ;

LEMAN STREET, LONDON, E. ; AND CHRISTMAS STREET, BRISTOL.

Salerooms :

LEEDS, HUDDERSFIELD, NOTTINGHAM, BLACKBURN, BIRMINGHAM,
NORTHAMPTON, AND CARDIFF.



ORDERS for regular stock should be sent to the *Central Office*,
1, Balloon Street, Manchester ; or to the Branch Warehouses,
Waterloo Street, Newcastle, and *Leman Street, London* ;
and, to avoid delay, orders for BESPOKE OR MEASURED WORK
must be sent to **Wheat Sheaf Works, Leicester**, direct.



WE MANUFACTURE ALL KINDS OF MEN'S AND BOYS' CALF AND
KIP BALMORALS, POLICE BOOTS,
WATERTIGHTS, EXTRA STRONG COWHIDE WATERPROOF SHOOTING
BOOTS, OPEN TAB BALMORALS, FRENCH CALF AND CRUPP BALMORALS,
BUTTON AND ELASTIC SIDE BOOTS,
CALF PATENT DRESS BOOTS,
PATENT OXFORD AND DERBY SHOES,
RUSSET AND COLOURED BOOTS FOR
CRICKET, FOOTBALL, AND SEASIDE,
In Riveted, Wood Pegged, Hand Sewn, Combination,
Machine Sewn, Standard Screwed,
Fair Stitched, &c., &c.

LADIES' AND MISSES' BUTTON BOOTS, LACE BOOTS,
ELASTIC SIDE BOOTS,
MOCK BUTTON BOOTS,
CALF KID, DONGOLA, DULL AND BRIGHT,
GLOVE, GLACE, AND MOCK KID IN EVERY STYLE.
COLOURED SHOES FOR TENNIS, ETC., ETC.
EVENING SHOES.
CANVAS SHOES IN ALL SHADES AND QUALITIES.

LADIES' AND MISSES' CALF KID,

GLOVE KID,

GLACE KID,

SEAL LEVANT,

KIP LEVANT,

LEVANT MOROCCO,

ENGLISH AND FRENCH CALF,

MOCK GLOVE, FRENCH SHEEP, GERMAN CRUPP,

AND OTHER MATERIALS.

CHILDREN'S

BOOTS AND SHOES

IN ALL STYLES.

LADIES' CASHMERE, BUTTON,

AND

SPRING-SIDE HOUSE BOOTS,

From 2s. 9d. per Pair.

WE are also making the following

Specialities in Gentlemen's Boots :—

CO-OPERATOR.

FEDERATIVE.

TIMELY.

JUBILEE.

SERVICEABLE.

PROGRESS, &c.

In our Illustrated List we give the numbers of those usually kept in stock at Manchester, as well as at the branch warehouses in Newcastle and London. Societies requiring any kind of goods not mentioned in our *List*, we shall be glad to make for them upon receiving instructions.

Although there is a growing demand for Low-priced Goods, which we endeavour to meet, we have in no case departed from the principle which has been adhered to since the commencement of these Works—of always using material of known excellence, and *discarding the use of all substitutes for honest leather*. The continued and growing demand for our productions warrants us in stating that for quality and price they are equal, if not superior, to anything supplied by the general trade. In addition to the wholesale trade, we are now making about three hundred pairs of Bespoke and Measured Work weekly, and every effort is made to supply these orders promptly; but many delays, misfits, and mistakes would be avoided if societies would only follow our instructions for measurement. **A draft of the foot should in all cases be taken**, and sent with the correct measurement. Societies should use our Order Books specially arranged for this department, which are only 10d. each, and can be obtained at either the Central or Branch Warehouses. **Cut Soles** for Repairing purposes supplied in any quantity or quality. Price List and Samples sent on application.

Beckmondwike Boot & Shoe Works.

Warehouses:

BALLOON STREET, MANCHESTER;

WATERLOO STREET, NEWCASTLE-ON-TYNE;

LEMAN STREET, LONDON, E.; CHRISTMAS STREET, BRISTOL.

Salerooms:

LEEDS, HUDDERSFIELD, NOTTINGHAM, BLACKBURN, BIRMINGHAM,
NORTHAMPTON, AND CARDIFF.

Orders must be addressed either to Central Office, or to the Branch
Establishments at Newcastle or London.

THESE Works having been considerably enlarged, we are now in a position to
double our production, and we appeal to societies to give us their support.

The Goods we make are **Men's and Youths' Strong Nailed**, suitable for
miners, quarrymen, farm labourers, masons, joiners, railway servants, &c. We
also make in **Men's and Boys'** a quantity of **Medium Strength** with **Smooth
Bottoms**, with nails driven up, suitable for a working boot in lighter
occupations.

We also make **Women's Strong Laced Mill Boots**. In the manufacture of
our goods we pay special attention to the selection of material used for the
inner sole, which is the foundation of a strong boot, and on which depends
entirely the wear, and when re-soled and heeled gives the repairer a good
foundation to work upon. This very important feature applies to the whole of
the goods we make, from the lowest priced ones upwards.

We desire it to be fully understood that none of our manufactures contain
paper or composition leather board, but solid leather; and therefore, if in some
instances our prices are found to be somewhat higher than goods of similar
appearance, you may rely upon it the difference of the price is in the quality.

CURRYING DEPARTMENT.

The above Department is now in full working order, and we are able to supply
societies with any of the following Goods:—

LEVANT HIDES.	MEMEL HIDES.	SATIN KIPS.
„ KIPS.	„ HIDE BUTTS.	„ KIP SHOULDERS.
„ KIP SHOULDERS.	„ KIPS.	WAXED HIDE BUTTS.
„ HORSE SHOULDERS.	SATIN HIDES.	„ KIP BUTTS.
„ „ BELLIES.	„ HIDE SHOULDERS.	„ E. J. CALF.

Durham Soap Works,

GILESGATE.

Salerooms and Warehouses:

BALLOON STREET, MANCHESTER ;
 WATERLOO STREET, NEWCASTLE-ON-TYNE ;
 LEMAN STREET, LONDON, E. ;
 CHRISTMAS STREET, BRISTOL ;
 LEEDS, HUDDERSFIELD, NOTTINGHAM, BLACKBURN, BIRMINGHAM,
 NORTHAMPTON, AND CARDIFF.

THESE Works were established October, 1874, to enable the Society to supply its members with a pure article. We can, without fear of contradiction, say that the Soap supplied from these Works is equal to any supplied by the best manufacturers, combining all the qualities of a substantial cleaning agency, and being manufactured from the very best raw material.

We supply the following qualities :

WHEATSHEAF PALE	WHITE WINDSOR
GOLDEN PALE	COLD WATER
FIRST „	BEST EXTRA PALE
SECOND „	X „
XX „	FINE „
GOLDEN WINDSOR	BEST MOTTLED
PALE „	SECOND „
HONEY SOAP, 1lb., $\frac{1}{2}$ lb., and $\frac{1}{4}$ lb. Tablets.	
ALMOND „	„ „
SOFT SOAP.	

SPECIALITIES :—

CARBOLIC SOAP.	PARAFFIN SOAP.
CONGRESS SOAP (in Tablets).	“C. W. S. CLEANSER.”
WHEATSHEAF TABLETS.	LILY SOAP.

ALL CARRIAGE PAID.

For prices, see Society's Weekly Price List. Samples will be sent on application.

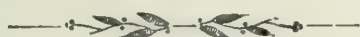
We are convinced that a much larger trade might be done if societies would only give this Soap a fair trial. The Co-operative Societies in the Newcastle district, who obtain their supplies chiefly from this source, find the Soap gives entire satisfaction to their members. We therefore ask societies to support their own production, instead of obtaining their supply from other makers, who have travellers ever on the road waiting upon store managers seeking to influence them to buy their Soap, and not that of their own manufacture.

CO-OPERATORS, SUPPORT CO-OPERATIVE PRODUCTION.

Livingstone Mills,

BATLEY, YORKSHIRE.

WOOLLEN MANUFACTURERS.

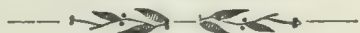


Salerooms and Warehouses:

1, BALLOON STREET, MANCHESTER ;

WATERLOO STREET, NEWCASTLE-ON-TYNE ;

AND LEMAN STREET, LONDON, E.



Orders should be sent either direct to the Central Office,
1, Balloon Street, Manchester, or to the Branches, Waterloo
Street, Newcastle, and Leman Street, London.

WOOLLENS AND WORSTEDS.

THE Productions of our Batley Mill are not to be surpassed in either
Quality, Style, or Price.

We are now manufacturing some of the choicest patterns in

FANCY WORSTED TROUSERINGS AND TWEEDS.

Our INDIGO BLUE SERGES AND WOADED BLACK WORSTED
COATINGS are so well known throughout the Stores as to need no further
description.

We have lately added to our Weaving Plant some of the newest and
most efficient Fast Looms and Beaming Machinery, so that we are now
in a position to meet satisfactorily the increasing demands of our
customers.

PATTERN CARDS WILL BE SENT ON APPLICATION.

CO-OPERATORS! Ask at your STORES for BATLEY CLOTHS.

See that you get them, and don't be persuaded to take any other.

Productive Societies

FOR WHICH THE

CO-OPERATIVE WHOLESALE SOCIETY ARE AGENTS.



The Agricultural and Horticultural Association Limited.

Reliable Farm and Garden Seeds; special Manures for Fruit, Vegetable, and Garden Crops.



The Airedale Manufacturing Society Limited.

Manufacturers of Black Alpaca Lustres, Black Brilliantines, Black and Coloured French Twills, Mohair Glacés, Black and Coloured Persian, Russel and Cable Cords, Wool Serges, Black Orleans, Black and Coloured Italians, Black and Coloured Figures, Mottles, Mixtures, Stripes, &c., &c.



The Coventry Co-operative Watch Manufacturing Society Limited.

The Watches supplied by this Society we can well recommend as being of uniform good quality, and it engages to keep them in good going order for twelve months from date of purchase. We trust that individuals, through their societies, will give us their orders, so that we may do a larger trade in this department. Watches, from £2. 10s. to £25 each.



The Dudley Nail Manufacturing Society Limited.



The Dudley Productive Co-operative Society Limited.

Manufacturers of all kinds of Galvanised Goods, Buckets, Nails, &c.



The Eccles Industrial Manufacturing Society Limited.

Manufacturers of Toilet, Alhambra, and Damask Quilts, by hand and power; also Twill Sheetings, all of the best quality, and in tastily-arranged patterns.

Having repeatedly compared the Quilts produced by the Eccles Manufacturing Society with the Quilts made by other firms, we are thoroughly satisfied that those made by them are equal, and, when cost is considered, superior, to those sold by other makers. All Toilet and Honeycomb Quilts sold by the Co-operative Wholesale Society are made by the Eccles Manufacturing Society, and all members, when purchasing, should ask for the Eccles Quilts, and insist upon having them.

The Hebden Bridge Fustian Manufacturing Society Limited.

Manufacturers of Cords, Moles, Velveteens, Imperials, Diagonals, Sateens, Twills, &c., in every variety and colour; Fustian Clothing, ready-made and to order. Samples and prices on application.

The Heckmondwike Manufacturing Society Limited.

Manufacturers of Carpets, Horse Cloths, Blankets, &c.

The Lancashire and Yorkshire Co-operative Productive Society Limited.

Manufacturers of Flannels, plain and coloured, of guaranteed purity and excellence of manufacture, combined with reasonable prices. Societies ordering sufficiently large may, if desired, have the goods finished to suit their special markets.

The Leek Silk Twist Manufacturing Company Limited.

The Leicester Elastic Web Manufacturing Society Limited.

The Leicester 2nd Hosiery Manufacturing Society Limited.

We are now their sole agents, and keep a stock of all classes of goods made by them.

The Midland Nail Makers' Association Limited.

The Paisley Manufacturing Society Limited.

Manufacturers of Saxony Wool Shawls and Plaids, in plain and fancy checks, Saxony Wool Handkerchiefs and Scarfs, Dress Tartans, and Twilled and Plain Wool Shirtings. A large variety of patterns to select from.

The Rochdale Pioneers' Society Limited.

Manufacturers of Tobacco, Snuffs, &c.

The Sheepshed Hosiery Manufacturing Society Limited.

The Sheffield Co-operative Cutlery Manufacturing Society Limited.

Regular Steam Service

BETWEEN

GARSTON (LIVERPOOL) & ROUEN.

OFFICES :

CENTRAL : BALLOON STREET, MANCHESTER.
 LIVERPOOL : 7, VICTORIA STREET.
 GARSTON : NEW DOCK. ROUEN : 2, RUE JEANNE D'ARC.

"UNITY"

OR OTHER STEAMER DESPATCHED FORTNIGHTLY.

EXTRA STEAMERS TO SUIT THE REQUIREMENTS OF THE TRADE.

Goods carried at through rates, with quick despatch, between Liverpool, Manchester, Birmingham, and North of England Towns, and Paris, Lyons, Beauvais, Lille, and North and East of France.

For Rates of Freight and other information, apply to the Society's offices, as above.

On the outward voyages from Garston, in addition to sundry goods, the shipments consist largely of caustic soda, bleaching powder, and other chemicals from Widnes and St. Helens districts—machinery from Manchester and Bolton and neighbouring towns—American and East Indian cotton which has arrived at Liverpool and been ordered for shipment to Rouen, the principal seat of cotton industry in France. There are also considerable shipments of copper. On arrival of the goods at Garston they are taken directly alongside our steamers, in the railway wagons, and then by means of powerful hydraulic cranes they are transferred from the wagons to the hold of the steamers. By this means shippers may rely on the shipments being effected with prompt despatch, and we avoid the risk of damage which sometimes occurs when cartage is employed.

At Rouen the steamers are berthed in close proximity to the railway line, so that goods can be landed from the steamers direct on to the railway wagons. Or when consignees order goods to be forwarded from Rouen by water, the river barges are loaded alongside the steamer, and these are towed by powerful steam tugs up the Seine to Paris. Providing no exceptional delay occurs, the transit up the river occupies little over two days.

On the return journey from Rouen the steamer's cargo principally consists of loaf sugar coming from Paris, also sugar in bags, chemicals, dye stuffs, flour, field seeds, metals, and besides there are sundry goods in cases, such as glass-ware, toys, haberdashery, and *articles de Paris*.

In fine weather the sea voyage between Garston and Rouen occupies about three days. No effort is spared to ensure the steamer being despatched punctually from each port on the appointed dates, and as by this means a regular service is maintained, we are favoured with a large traffic from general shippers.

Goole and Calais Line of Steamers.

CENTRAL OFFICES: 1, BALLOON STREET, MANCHESTER.

GOOLE OFFICES: STANHOPE STREET.

CALAIS OFFICES: RUE DE MADRID.

Weekly Service between Goole & Calais.

THE new powerful and fast steamships "**PIONEER**," "**PROGRESS**," or other steamer, will (weather and other casualties permitting) sail regularly between Goole and Calais, leaving Goole every **Wednesday** and Calais every **Saturday**. This line is in direct communication at Goole with the L. & Y. and N. E. Railway Companies, whose wagons can be loaded direct from the steamers, thereby ensuring despatch with the least risk of damage to the goods carried by the line.

The Aire and Calder Navigation Company run their canal boats alongside the Company's steamers, so that all who prefer their goods carried by canal can have them loaded direct into the Aire and Calder Company's boats and *vice versâ*.

At Calais the steamers are berthed near the Custom House and opposite the goods warehouse of the North of France Railway Company, where the goods can be stored waiting the arrival of the steamers.

The North of France Railway Company have a line of rails laid to the place where the steamers are berthed, so that goods entrusted to this line can be safely and quickly despatched to their destination. The Goole and Calais route is the best and cheapest between the great manufacturing centres of the North of England and those of the North of France; and shippers in those districts will find it to their advantage to give this line a trial.

GOODS ARE CARRIED AT THROUGH RATES
FROM ANY PART OF THE UNITED KINGDOM TO THE PRINCIPAL CITIES
OF FRANCE AND THE CONTINENT.

For Rates of Freight and other information apply as above.

Goole & Hamburg Line of Steamers.

CENTRAL OFFICES: 1, BALLOON STREET, MANCHESTER.

GOOLE OFFICES: STANHOPE STREET.

HAMBURG BROKER: MR. W. ZODER, 3, STEINHOF.

Regular Service between GOOLE & HAMBURG.

THE POWERFUL AND FAST STEAMSHIPS

"LIBERTY," "EQUITY," and "FEDERATION,"

OR OTHER STEAMERS,

WILL (WEATHER AND OTHER CASUALTIES PERMITTING) SAIL REGULARLY
BETWEEN GOOLE AND HAMBURG,

LEAVING EACH PORT TWICE A WEEK.

Extra Steamers to suit the requirements of the Trade.

This line is in direct communication at Goole with the L. and Y. and N. E. Railway Companies, whose wagons can be loaded direct from the steamer, without the risk or expense of cartage. This is of great importance to shippers, as it ensures a quick delivery of their goods in a clean and undamaged condition.

The Aire and Calder Navigation Company run their canal boats alongside the Company's steamers, so that all who prefer their goods carried by canal can have them loaded direct into the Aire and Calder Company's boats, and *vice versa*.

At Hamburg the steamers are berthed alongside the warehouses of the Railway Company, where the goods can be stored waiting the arrival of the steamers.

GOODS ARE CARRIED AT THROUGH RATES
FROM ANY PART OF THE UNITED KINGDOM TO THE PRINCIPAL CITIES
OF GERMANY AND THE CONTINENT.

For Rates of Freight and other information apply as above.

PRINCIPAL EVENTS IN CONNECTION WITH THE
CO-OPERATIVE WHOLESALE SOCIETY
SINCE ITS COMMENCEMENT.

YEAR.	DAY.	EVENTS.
1863	Aug. 11 ..	Co-operative Wholesale Society enrolled.
1864	Mar. 14 ..	Co-operative Wholesale Society commenced business.
1866	April 24 ..	Tipperary Branch opened.
1868	June 1 ..	Kilmallock Branch opened.
1869	Mar. 1 ..	Balloon Street Warehouse opened.
"	July 12 ..	Limerick Branch opened.
1871	Nov. 26 ..	Newcastle-on-Tyne Branch opened.
1872	July 1 ..	Manchester Boot and Shoe Department commenced.
"	Oct. 14 ..	Bank Department commenced.
1873	Jan. 13 ..	Crumpsall Works purchased.
"	April 14 ..	Armagh Branch opened.
"	June 2 ..	Manchester Drapery Department established.
"	July 14 ..	Waterford Branch opened.
"	Aug. 4 ..	Cheshire Branch opened.
"	" 4 ..	Leicester Works purchased.
"	" 16 ..	Insurance Fund established.
"	Sept. 15 ..	Leicester Works commenced.
1874	Feb. 2 ..	Tralee Branch opened.
"	Mar. 9 ..	London Branch established.
"	Oct. 5 ..	Durham Soap Works commenced.
1875	April 2 ..	Liverpool Purchasing Department commenced.
"	June 15 ..	Manchester Drapery Warehouse, Dantzic Street, opened.
1876	Feb. 14 ..	Newcastle Branch Buildings, Waterloo Street, opened.
"	" 21 ..	New York Branch established.
"	May 24 ..	S.S. "Plover" purchased.
"	July 16 ..	Manchester Furnishing Department commenced.
"	Aug. 5 ..	Leicester Works first Extensions opened.
1877	Jan. 15 ..	Cork Branch established.
"	Oct. 25 ..	Land in Liverpool purchased.
1879	Feb. 21 ..	S.S. "Pioneer," Launch of.
"	Mar. 24 ..	Rouen Branch opened.
"	" 29 ..	S.S. "Pioneer," Trial trip.
"	June 30 ..	Goole Forwarding Department opened.
1880	Jan. 30 ..	S.S. "Plover" sold.

PRINCIPAL EVENTS IN CONNECTION WITH THE CO-OPERATIVE WHOLESALE SOCIETY

SINCE ITS COMMENCEMENT.—CONTINUED.

YEAR.	DAY.	EVENTS.
1880	Aug. 14 ..	Heckmondwike Boot and Shoe Works commenced.
„	Sept. 27 ..	London Drapery Department commenced in new premises,
1881	June 6 ..	Copenhagen Branch opened. [Hooper Square.
„	July 27 ..	S.S. "Cambrian" purchased.
1882	Oct. 31 ..	Leeds Saleroom opened.
„	Nov. 1 ..	London Tea and Coffee Department commenced.
1883	July 21 ..	S.S. "Marianne Briggs" purchased.
1884	April 7 ..	Hamburg Branch commenced.
„	May 31 ..	Leicester Works second Extensions opened.
„	June 25 ..	Newcastle Branch—New Drapery Warehouse opened.
„	Sept. 13 ..	Commemoration of the Society's Twenty-first Anniversary at Newcastle-on-Tyne and London.
„	„ 20 ..	Commemoration of the Society's Twenty-first Anniversary
„	„ 29 ..	Bristol Dépôt commenced. [at Manchester.
„	Oct. 6 ..	S.S. "Progress," Launch of.
1885	Dec. 30 ..	Fire—Tea Department, London.
1886	April 22 ..	Nottingham Saleroom opened.
„	Aug. 25 ..	Longton Crockery Dépôt opened.
„	Oct. 12 ..	S.S. "Federation," Launch of.
1887	Mar. 14 ..	Batley Mill commenced.
„	June 1 ..	S.S. "Progress" damaged by fire at Hamburg.
„	July 21 ..	Manchester—New Furnishing Warehouse opened.
„	Aug. 29 ..	Heckmondwike—Currying Department commenced.
„	Nov. 2 ..	London Branch—New Warehouse opened.
„	„ 2 ..	Manufacture of Cocoa and Chocolate commenced.
1888	July 7 ..	S.S. "Equity," Launch of.
„	Sept. 8 ..	S.S. "Equity," Trial trip.
„	„ 27 ..	S.S. "Cambrian" sold.
„	Oct. 14 ..	Fire—Newcastle Branch.
1889	Feb. 18 ..	Enderby Extension opened.
„	Nov. 11 ..	Longton Dépôt—New Premises opened.
1890	Mar. 10 ..	S.S. "Liberty," Trial trip.
„	Oct. 22 ..	Northampton Saleroom opened.
1891	April 18 ..	Dunston Corn Mill opened.
„	Oct. 22 ..	Cardiff Saleroom opened.
„	Nov. 4 ..	Leicester New Works opened.
„	„ 16 ..	Aarhus Branch opened.
1892	May 5 ..	Birmingham Saleroom opened.

MEETINGS AND OTHER COMING EVENTS IN CONNECTION WITH THE SOCIETY IN 1893.

- Jan. 28—SATURDAY....Nomination Lists: Last day for receiving.
- Feb. 28—TUESDAYVoting Lists: Last day for receiving.
- Mar. 4—SATURDAY....Newcastle and London Branch and Divisional
Quarterly Meetings.
- Mar. 11—SATURDAY....General Quarterly Meeting—Manchester.
- Mar. 25—SATURDAY....Quarter Day.
- April 29—SATURDAY....Nomination Lists: Last day for receiving.
- May 30—TUESDAYVoting Lists: Last day for receiving.
- June 3—SATURDAY....Newcastle and London Branch and Divisional
Quarterly Meetings.
- June 10—SATURDAY....General Quarterly Meeting—Manchester.
- June 24—SATURDAY....Quarter Day.
- July 29—SATURDAY....Nomination Lists: Last day for receiving.
- Aug. 29—TUESDAYVoting Lists: Last day for receiving.
- Sept. 2—SATURDAY....Newcastle and London Branch and Divisional
Quarterly Meetings.
- Sept. 9—SATURDAY....General Quarterly Meeting—Manchester.
- Sept. 23—SATURDAY....Quarter Day.
- Oct. 28—SATURDAY....Nomination Lists: Last day for receiving.
- Nov. 28—TUESDAYVoting Lists: Last day for receiving.
- Dec. 2—SATURDAY....Newcastle and London Branch and Divisional
Quarterly Meetings.
- Dec. 9—SATURDAY....General Quarterly Meeting—Manchester.
- Dec. 23—SATURDAY....Quarter Day.

LIST OF TELEGRAPHIC ADDRESSES.

CENTRAL, MANCHESTER: "WHOLESALE, MANCHESTER."
 NEWCASTLE BRANCH: "WHOLESALE, NEWCASTLE-ON-TYNE."
 LONDON BRANCH: "CO-OPERATIVE, LONDON."
 BRISTOL DEPÔT: "WHOLESALE, BRISTOL."
 LIVERPOOL OFFICE AND WAREHOUSE: "WHOLESALE, LIVERPOOL."
 LEEDS SALE AND SAMPLE ROOMS: "WHOLESALE, LEEDS."
 CRUMPSALL WORKS: "BISCUIT, MANCHESTER."
 LEICESTER SHOE WORKS: "WHOLESALE, LEICESTER."
 HECKMONDWIKE SHOE WORKS: "WHOLESALE, HECKMONDWIKE."
 BATLEY WOOLLEN MILL: "WHOLESALE, BATLEY."
 LONGTON CROCKERY DEPÔT: "WHOLESALE, LONGTON (STAFF.)."
 SOAP WORKS, DURHAM: "WHOLESALE, DURHAM."
 CORN MILL, DUNSTON-ON-TYNE: "WHOLESALE, DUNSTON-ON-TYNE."

TELEPHONIC COMMUNICATION.

Our Premises in the following towns are directly connected with the Local Telephone System:—

	NOS.
MANCHESTER—GENERAL OFFICES.....	802
" " " 	†856
" " " 	908
" " " 	1755
CRUMPSALL—SUB TO MANCHESTER GENERAL OFFICES.	
BROUGHTON—CABINET WORKS.....	†814
NEWCASTLE	1260
" " " 	*284
LONDON—GROCERY AND PROVISION.....	2385
" " " 	2384
" " " 	2217
BRISTOL	40
LIVERPOOL	397
GARSTON	2706
GOOLE	2
LEICESTER.....	235
LONGTON.....	416
DUNSTON.....	1261

* Post-office System. † New. All others National Telephone Company.

CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

PAST MEMBERS OF GENERAL COMMITTEE.

NAME.	ADDRESS.	ELECTED.	RETIRED.
*A. Greenwood	Rochdale.....	1863 August ..	1870 August.
†Councillor Smithies ..	Rochdale.....	1863 August ..	1869 May.
§James Dyson	Manchester	1863 August ..	1867 May.
Edward Hooson	Manchester	1863 August ..	1864 March.
John Hilton	Middleton	1866 May.....	1869 Dec.
		1863 August ..	1868 Nov.
		1863 August ..	1864 March.
*James Crabtree	Heckmondwike ..	1865 Nov.	1874 May.
		1885 Dec.	1886 March.
		1886 June	1889 Dec.
Joseph Thomasson....	Oldham	1863 August ..	1864 March.
Charles Howarth	Heywood	1866 May.....	1869 Nov.
J. Neild	Mossley	1864 March ..	1866 October.
Thomas Cheetham....	Rochdale	1864 March ..	1865 Nov.
§E. Longfield	Manchester	1867 Nov.	1868 Nov.
		1864 March ..	1865 Nov.
†J. M. Percival.....	Manchester	1867 Nov.	1868 Nov.
		1864 March ..	1865 Nov.
Isaiah Lee	Oldham	1867 May.....	1867 Nov.
§D. Baxter.....	Manchester	1868 Feb.....	1868 May.
J. Swindells.....	Hyde.....	1870 Feb.....	1872 August.
T. Sutcliffe	Todmorden	1876 March ..	1882 June.
†James C. Fox.....	Manchester	1867 Nov.	1868 Nov.
W. Marcroft	Oldham	1868 May.....	1871 May.
Thomas Pearson	Eccles	1868 Nov.	1869 Nov.
R. Holgate	Over Darwen	1869 May.....	1871 May.
A. Mitchell	Rochdale	1869 Nov.	1871 Nov.
W. Moore.....	Batley Carr.....	1869 Nov.	1870 Nov.
		1870 August ..	1870 Nov.
†Titus Hall	Bradford	1870 Nov.	1871 August.
		1871 May.....	1874 Dec.
B. Hague	Barnsley	1871 May.....	1874 Dec.
		1874 Dec.	1885 Dec.
Thomas Shorrocks....	Over Darwen	1871 May.....	1873 May.
†R. Allen	Oldham	1874 Dec.	1884 Sept.
Job Whiteley	Halifax	1871 May.....	1871 Nov.
		1871 August ..	1877 April.
†Thomas Hayes	Failsworth	1871 August ..	1872 Feb.
Jonathan Fishwick ..	Bolton	1873 Feb.....	1874 Feb.
J. Thorpe.....	Halifax	1871 Nov.	1873 August.
		1871 Nov.	1872 Feb.
†W. Johnson.....	Bolton	1872 Feb.....	1873 Feb.
		1872 Feb.....	1876 June.
§H. Whiley	Manchester	1877 June	1885 March.
		1872 August ..	1874 Feb.
		1874 May.....	1876 March.

* Held Office as President.

† Held Office as Secretary and Treasurer.

† „ „ Secretary.

§ „ „ Treasurer.

PAST MEMBERS OF GENERAL COMMITTEE.—*Continued.*

NAME.	ADDRESS.	ELECTED.	RETIRED.
J. Butcher	Banbury	1873 May.....	1873 August.
H. Atkinson	Blaydon-on-Tyne ..	1873 August ..	1874 Dec.
J. F. Brearley	Oldham	1874 Feb.....	1874 Dec.
Robert Cooper.....	Accrington	1874 Feb.....	1876 June.
H. Jackson	Halifax	1874 Dec.	1876 June.
J. Pickersgill	Batley Carr	1874 Dec.	1877 March.
W. Barnett.....	Macclesfield.....	1874 Dec.	1882 Sept.
W. Nuttall	Oldham	1876 June	1877 Dec.
S. Lever	Bacup	1876 Sept.	1885 Sept.
		1886 March ..	1888 May.
F. R. Stephenson	Halifax	1876 Sept.	1877 March.
R. Whittle	Crewe	1877 Dec.	1886 March.
Joseph Mc.Nab	Hyde	1883 Dec.	1886 March.
James Hilton	Oldham	1884 Sept.	1890 January.
Samuel Taylor	Bolton	1885 Sept.	1891 Dec.
William P. Hemm....	Nottingham	1883 Sept.	1889 August.

* PAST MEMBERS OF NEWCASTLE BRANCH COMMITTEE.

NAME.	ADDRESS.	ELECTED.	RETIRED.
George Dover	Chester-le-Street ..	1874 Dec.	1877 Sept.
†Humphrey Atkinson..	Blaydon-on-Tyne ..	1874 Dec.	1879 May.
James Patterson	West Cramlington..	1874 Dec.	1877 Sept.
John Steel	Newcastle-on-Tyne..	1874 Dec.	1876 Sept.
William Green	Durham	1874 Dec.	1891 Sept.
Thomas Pinkney	Newbottle	1874 Dec.	1875 March.
†John Thirlaway	Gateshead	1876 Dec.	1892 May.
William Robinson	Shotley Bridge	1877 Sept.	1884 June.
William J. Howat	Newcastle-on-Tyne..	1877 Dec.	1883 Dec.
J. Atkinson.....	Wallsend	1883 Dec.	1890 May.
George Fryer	Cramlington	1883 Dec.	1887 Dec.

* PAST MEMBERS OF LONDON BRANCH COMMITTEE.

NAME.	ADDRESS.	ELECTED.	RETIRED.
J. Durrant	Arundel	1874 Dec.	1875 Dec.
John Green	Woolwich	1874 Dec.	1876 Dec.
†Thomas Fowe	Buckfastleigh	1874 Dec.	1878 March.
†William Strawn	Sheerness.....	1875 Dec.	1882 March.
Frederick Lamb.....	Banbury	1876 Dec.	1888 Dec.
F. A. Williams	Reading	1882 June	1886 Sept.
J. J. B. Beach.....	Colchester	1886 Dec.	1888 Dec.

* Newcastle and London Branch Committees constituted December, 1874.

† Held Office as Secretary.

CO-OPERATIVE WHOLESALE SOCIETY LIMITED.



MEMBERS OF GENERAL, AND NEWCASTLE
AND LONDON BRANCH COMMITTEES WHO HAVE DIED
DURING TIME OF OFFICE.

NAME.	ADDRESS.	DATE OF DEATH.
GENERAL.		
Edward Hooson	Manchester	December 11th, 1869.
Robert Allen	Oldham	April 2nd, 1877.
Richard Whittle	Crewe	March 6th, 1886.
Samuel Lever	Bacup	May 18th, 1888.
William P. Hemm	Nottingham	August 21st, 1889.
James Hilton	Oldham	January 18th, 1890.
Samuel Taylor	Bolton	December 15th, 1891.
NEWCASTLE.		
J. Atkinson	Wallsend	May 25th, 1890.
William Green	Durham	September 9th, 1891.
John Thirlaway	Gateshead	May 1st, 1892.
LONDON.		
J. J. B. Beach	Colchester	December 21st, 1888.

PROGRESS FROM COMMENCEMENT,

YEAR ENDING	£5 Shares taken up.	No. of Mem- bers belonging to our Shareholders.	CAPITAL.						Net Sales.
			Shares.	Loans and Deposits.	Trade and Bank Re- serve Fund.	Insurance Fund.	Reserved Expenses.	Total.	
			£	£	£	£	£	£	
Oct. 1864 (30 weeks) .....	....	18,337	2,455	Inclu-	....	....	..	2,455	5
„ 1865 .....	....	24,005	7,182	ded in	....	....	..	7,182	12
„ 1866 .....	....	31,030	10,968	Shares.	82	....	..	11,050	17
Jan. 1868 (65 weeks) .....	....	59,349	11,276	14,355	682	....	..	26,313	33
„ 1869 .....	....	74,737	14,888	16,059	1,115	....	..	32,062	41
„ 1870 .....	....	79,245	16,556	22,822	1,280	....	..	40,658	50
„ 1871 (53 weeks) .....	....	89,880	19,015	22,323	2,826	....	..	44,164	67
„ 1872	5,835	114,588	24,410	25,768	1,910	....	..	52,088	75
„ 1873	6,949	134,276	31,352	112,589	2,916	....	..	146,857	118
„ 1874	13,899	168,985	48,126	147,949	1,613	2,356	..	200,044	168
„ 1875	17,326	198,608	60,930	193,594	5,373	3,385	..	263,282	198
„ 1876	22,254	249,516	78,249	236,614	8,910	5,834	..	379,607	249
„ 1877 (53 weeks)	24,717	276,522	94,590	299,287	12,631	10,843	634	417,985	268
„ 1878	24,979	274,649	103,091	287,536	14,554	12,556	788	418,525	288
„ 1879	28,206	305,161	117,657	291,939	16,245	15,127	1,146	442,114	278
Dec. 1879 (50 weeks)	30,688	331,625	130,615	321,670	25,240	15,710	1,095	494,330	268
„ 1880	33,663	361,523	146,061	361,805	38,422	17,905	1,661	565,854	338
„ 1881	34,351	367,973	156,052	386,824	16,037	18,644	2,489	580,046	358
„ 1882	38,643	404,006	171,940	416,832	20,757	19,729	2,945	632,203	408
„ 1883	41,783	433,151	186,692	455,879	20,447	21,949	6,214	691,181	458
„ 1884 (53 weeks)	45,099	459,734	207,080	494,840	25,126	24,324	9,988	761,358	468
„ 1885	51,099	507,772	234,112	524,781	31,094	40,084	11,104	841,175	478
„ 1886	58,612	558,104	270,679	567,527	37,755	57,015	11,403	944,379	528
„ 1887	64,475	604,800	300,953	590,091	39,095	73,237	13,666	1,017,042	578
„ 1888	67,704	634,196	318,583	648,134	51,189	84,201	13,928	1,116,035	628
„ 1889 (53 weeks)	72,399	679,336	342,218	722,321	58,358	119,541	9,197	1,251,635	708
„ 1890	92,572	721,316	434,017	824,974	48,549	155,231	11,695	1,474,466	748
„ 1891	100,022	751,269	473,956	900,752	53,165	193,115	15,409	1,636,397	878
	....	....	....	....	....	....	..	....	86,2

TRADE

DR.

RESERVE FUND ACCOUNT FROM

Additions to—

From Disposal of Profit Account, as above	90
Bonus to Employes: Balances between Amounts Provided and actually Paid	
Dividend on Bad Debts, previously written off	
Unclaimed Shares and Cash	
Profit on Sale of Strawberry Estate, Newcastle	
„ „ Land, Liverpool	
„ „ Land and Buildings, Rosedale	
Interest on Manchester Ship Canal Shares	
Dividend on Sales to Employes	

ARCH, 1864, TO DECEMBER, 1891.

Comparison corresponding period of year.		DISTRIBUTIVE EXPENSES.			Net Profit.	Average Divi- dend paid per £.	ADDITIONS TO TRADE.		Dates Departments and Branches were commenced.
se.	Rate.	Amnt.	Rate on Sales				Reserve Fund.	Insurance Fund.	
		£	Per £.	Per £100.	£	d.	£	£	
	..	347	1 $\frac{3}{4}$	13 4 $\frac{1}{2}$	267	11 $\frac{1}{2}$	....	....
	..	906	1 $\frac{3}{4}$	15 0	1,858	3 $\frac{1}{2}$	....	....
35	45 $\frac{1}{4}$	1,615	2 $\frac{1}{4}$	18 4 $\frac{3}{4}$	2,310	3	234	....	Tipperary.
88	51 $\frac{1}{4}$	3,135	2 $\frac{1}{4}$	18 10 $\frac{3}{4}$	4,411	3	450	....
63	43	3,338	1 $\frac{1}{4}$	16 2 $\frac{1}{4}$	4,862	2 $\frac{3}{4}$	416	....	Kilmallock.
77	23	4,644	2 $\frac{1}{4}$	18 3 $\frac{1}{4}$	4,248	1 $\frac{3}{4}$	542	....	Limerick.
79	30	5,583	1 $\frac{1}{4}$	16 5 $\frac{3}{4}$	7,626	2 $\frac{1}{4}$	1,620	....
59	12 $\frac{1}{4}$	6,853	2 $\frac{1}{4}$	18 0 $\frac{3}{4}$	7,867	2 $\frac{1}{4}$	1,036	....	Newcastle.
68	51 $\frac{1}{4}$	12,811	2 $\frac{3}{8}$	22 2 $\frac{3}{8}$	11,116	2 $\frac{1}{4}$	1,243	....	Manchester Boot and Shoe, Crumpsall.
18	41 $\frac{1}{4}$	21,147	3	25 10	14,233	2	922	....	{ Armagh, M'chester Drapery, Leicester, Hartford, Waterford, Clonmel.
79	20	28,436	3 $\frac{3}{8}$	28 11 $\frac{1}{4}$	20,684	2	4,461	....	London, Tralee, Durham.
66	14 $\frac{1}{4}$	31,555	3 $\frac{3}{8}$	28 0 $\frac{1}{4}$	26,750	2 $\frac{1}{4}$	4,826	....	Liverpool.
95	17 $\frac{1}{4}$	42,436	3 $\frac{3}{4}$	31 5 $\frac{1}{2}$	36,979	2 $\frac{3}{8}$	4,925	....	{ New York, Goole, Furnishing. S.S. purchased.
97	7 $\frac{1}{4}$	43,169	3 $\frac{3}{8}$	30 6 $\frac{3}{4}$	29,189	2	579	....	Cork.
27*	4 $\frac{1}{4}$	43,093	3 $\frac{3}{4}$	31 10 $\frac{1}{4}$	34,959	2 $\frac{1}{4}$	5,970	....
74	5 $\frac{1}{4}$	41,309	3 $\frac{3}{4}$	31 2 $\frac{3}{4}$	42,764	2 $\frac{3}{4}$	8,060	....	{ Launch of Steamship "Pioneer." Rouen. Goole forwarding depôt.
282	22 $\frac{1}{4}$	47,153	3 $\frac{3}{8}$	28 2 $\frac{3}{4}$	42,090	2 $\frac{3}{8}$	10,651	....	Heckmondwike.
414	7	51,306	3 $\frac{3}{8}$	28 8 $\frac{1}{2}$	46,850	2 $\frac{3}{8}$	7,672	....	{ Copenhagen. Purchase of S.S. "Cam- brian."
143	12 $\frac{1}{4}$	57,340	3 $\frac{3}{8}$	28 4 $\frac{3}{4}$	49,658	2 $\frac{5}{8}$	3,416	....	Tea and Coffee Department, London.
651	12 $\frac{1}{4}$	66,057	3 $\frac{3}{8}$	29 0 $\frac{3}{8}$	47,885	2 $\frac{5}{8}$	3,176	....	Purchase of S.S. "Marianne Briggs."
042	7 $\frac{1}{4}$	70,343	3 $\frac{1}{2}$	30 1	54,491	2 $\frac{3}{4}$	6,432	....	{ Hamburg. Bristol Depôt. Launch of S.S. "Progress."
946	4 $\frac{3}{8}$	74,305	3 $\frac{5}{8}$	31 0	77,630	3 $\frac{3}{8}$	4,434	13,259	
028	8 $\frac{7}{8}$	81,653	3 $\frac{3}{4}$	31 3 $\frac{3}{8}$	83,328	3 $\frac{1}{8}$	7,077	15,469	{ Longton Depôt. Launch of S.S. "Federation."
056	9 $\frac{3}{8}$	93,979	3 $\frac{7}{8}$	32 10 $\frac{3}{4}$	65,141	2 $\frac{1}{2}$	9,408	2,778	Batley, Heckmondwike Currying.
839	8 $\frac{1}{2}$	105,027	4	33 10 $\frac{1}{2}$	82,490	2 $\frac{7}{8}$	8,684	6,614	{ London Cocoa Department. Launch of S.S "Equity." Batley Ready Mades.
638	11 $\frac{1}{8}$	117,849	4	33 6 $\frac{3}{8}$	101,984	3 $\frac{1}{8}$	2,249	16,658	
750	7 $\frac{3}{8}$	126,879	4	34 1 $\frac{7}{8}$	126,979	3 $\frac{1}{2}$	..	20,982	{ Launch of S.S. "Liberty." Leeds Ready-Mades Department.
357	18	143,151	3 $\frac{7}{8}$	32 7 $\frac{3}{8}$	135,008	3 $\frac{1}{2}$	1,145	14,702	Dunston, Aarhus, Leicester New Works
.	..	1,325,419	3 $\frac{5}{8}$	30 8 $\frac{3}{4}$	1,163,657	2 $\frac{5}{8}$	99,628	90,462	

* Decrease.

DEPARTMENT.

COMMENCEMENT OF THE SOCIETY.

Cr.

Contributions from—	£
Subscription Dinner: Opening Warehouse, Balloon Street	56
Land and Buildings Account Depreciation, Special	1,148
Repairs	852
Newcastle Formation Expenses	16
Insurance Fund	6,000
Investments Written off: Bank Department	18,259
Trade Department	10,660
Manchester Ship Canal Shares	20,000
Donations, Subscriptions, &c.	12,066
1st Anniversary Commemoration Expenses	2,017
Total	71,074
Reserve Fund, as per Capital Account, December 26, 1891	34,002
	£105,076

STATEMENT OF LAND, BUILDINGS, STEAMSHIPS, AND

		LAND.						
		Area in Square Yards.	Yearly Chief.	Total Pay- ments	Less Written Off.	Nomin- al Original Value.	Depre- ciation.	Nomi- nal Value Jan- 1891
MANCHESTER:—								
1, Balloon Street, and 35, 37, 39, and 41, Garden Street 21 to 31, and 41 to 50, Back Balloon Street	Grocery Warehouses and Meet- ing-room.....	1960 ¹ / ₃	£ s. d. 22 4 10	12872	..	12872	7490	53
Balloon Street and Holgate Street	Property on Rental .....	....	....	..	..	..	..	..
Dantzic St. and Garden St.. 88 to 96, Corporation Street. Garden Street.....	Central Offices, Bank, Boot and Shoe, and Furnishing Ware- houses, and White Lion Hotel Drapery and Woollens Depts...	2936 ⁷ / ₉ 1493 ¹ / ₃	8 13 6 5 0 0	35999 17934	..	35999 17934	7759 5513	282 124
14, 16, and 18, Balloon St., and 14, 16, and 18, Holgate St..	Warehouses on Rental	635	Freehold.	11250	..	11250	1234	100
	New Engine-house, &c.....	750	....	6000	..	6000	654	53
	Property on Rental.....	....	....	..	..	..	..	..
NEWCASTLE-ON-TYNE:—								
Thornton Street, Waterloo St., & West Blandford St.	Total, Manchester....	7775 ⁴ / ₉	35 18 4	84055	..	84055	22650	614
LONDON:—	Offices, Grocery, and Drapery W'house, Boot & Shoe & Fur- nishing W'house, Dining-rm.	8770	Freehold.	33262	44	33218	5156	230
Leman Street & Great Pres- cott Street	Offices, Grocery, Drapery, Boot & Shoe, Furnishing, & Tea, Coffee & Cocoa Warehouse, Property on Rental, Stables, &c.....	4072 ¹ / ₃	..	22683	1083	21600	3621	179
BRISTOL	Warehouse and Sale Rooms ..	....	....	..	..	..	..	..
CRUMPSALL.....	Biscuits and Sweets, and Dry and Soft Soap Works.....	10535	45 0 0	..	..	..	..	..
LEICESTER	Boot and Shoe Works	31000	Freehold.	9567	441	9126	1470	76
ENDERBY.....	..	776	..	84	..	84	8	1
HECKMONDWIKE	Boot & Shoe & Currying Works	5947	..	1442	..	1442	243	6
DURHAM	Soap Works	1094 ² / ₃	..	1095	..	1095	473	..
BATLEY.....	Woollen Mill & Ready-mades..	7036	Freehold.	3726	..	3726	466	3
DUNSTON	Corn Mill .....	....	....	..	..	..	..	..
LIVERPOOL	Office Fittings.....	....	....	..	..	..	..	..
CHESHIRE	Horse and Trap .....	....	....	..	..	..	..	..
BIRMINGHAM	Sale Room.....	....	....	..	..	..	..	..
LEEDS .....	..	....	....	..	..	..	..	..
"	Ready-mades.....	....	....	..	..	..	..	..
Limerick (839 years' lease)..	Butter Purchasing Depôt	480 ¹ / ₃	10 0 0	..	..	..	..	..
Waterford .....	" ..	....	....	..	..	..	..	..
Kilmallock .....	" ..	....	....	..	..	..	..	..
Tipperary (99 years' lease)..	House & Butter Store on Rental.	595 ¹ / ₂	4 0 0	..	..	..	..	..
Cork	Butter Purchasing Depôt ....	....	....	..	..	..	..	..
Tralee (99 years' lease)	Butter and Eggs ..	693 ¹ / ₃	5 0 0	..	..	..	..	..
Armagh.....	Butter and Eggs ..	2785 ¹ / ₃	36 7 0	..	..	..	..	..
NEW YORK (America)	Office Fittings .....	....	....	..	..	..	..	..
COPENHAGEN .....	" ..	....	....	..	..	..	..	..
AARHUS.....	" ..	....	....	..	..	..	..	..
HAMBURG.....	" ..	....	....	..	..	..	..	..
LONGTON	Crockery Depôt and House....	1708	Freehold.	470	..	470	35	..
ROUEN (France).....	Shipping Depôt, Shed, Office Fittings, &c. ....	....	....	..	..	..	..	..
CALAIS	" Offices, Crane & Lines	....	....	..	..	..	..	..
GOOLE .....	" ..	....	....	..	..	..	..	..
Longsight	Land	45347	Freehold.	9619	..	9619	2044	7
Gorton	Dwelling-houses and Shops ..	9000	"	3925	..	3925	225	3
Lower Broughton	Cabinet Works.....	8717	"	4413	..	4413	138	4
Bolton	Dwelling-houses and Shops ..	12183 ¹ / ₂	130 3 0	..	..	..	..	..
Newhall	Dwelling-houses and Shops ..	7260	Freehold.	300	..	300	66	..
Taff	Dwelling-houses and Shops....	1150	9 11 0	..	..	..	..	..
South Shields.....	Dwelling-houses and Shops....	453 ¹ / ₃	Freehold.	165	..	165	34	..
	S.S. "Pioneer" .....	....	....	..	..	..	..	..
	S.S. "Unity" .....	....	....	..	..	..	..	..
	S.S. "Progress" .....	....	....	..	..	..	..	..
	S.S. "Federation" .....	....	....	..	..	..	..	..
	S.S. "Equity" .....	....	....	..	..	..	..	..
	S.S. "Liberty" .....	....	....	..	..	..	..	..
	S.S. "Dinah" .....	....	....	..	..	..	..	..
Garston and Rouen, Goole and Calais, and Goole and Hamburg Lines....								
Dunston..								
Totals..		167379 ⁴ / ₉	275 19 4	174806	1568	173238	36629	136

FIXTURES, QUARTER ENDING JUNE 25TH, 1892.

BUILDINGS AND STEAMSHIPS.					FIXTURES.					TOTALS.				
Less Written Off.	Nomin'l Origin'l Value.	Depre- ciation.	Nomin'l Value, June, 1892.	Total Pay- ments.	Less Written Off.	Nomin'l Origin'l Value.	Depre- ciation.	Nomin'l Value, June, 1892.	Total Pay- ments.	Less Written Off.	Nomin'l Origin'l Value.	Depre- ciation.	Nomin'l Value, June, 1892.	
£	£	£	£	£	£	£	£	£	£	£	£	£	£	
..	32475	22692	9783	13630	210	13420	13385	35	58977	210	58767	43567	15200	
..	50	1	49	..	..	..	..	..	50	..	50	1	49
416	41976	7292	34684	13781	239	13542	1914	11628	92172	655	91517	16935	74552	
3587	30939	16864	14075	9829	18	9811	6657	3154	62289	3605	58684	29034	29650	
..	12900	2789	10111	..	..	..	..	..	24150	..	24150	4023	20127
433	2520	71	2449	1200	..	1200	23	1177	10153	433	9720	748	8972	
..	250	3	247	..	..	..	..	..	250	..	250	3	247
4436	121110	49712	71398	38440	467	37973	21979	15994	248041	4903	243133	94341	148797	
292	53623	21981	31642	12078	100	11978	9391	2087	99255	436	98819	37028	61791	
..	85516	29354	56162	29164	..	29164	13756	15408	137363	1083	136280	46731	89549	
..	..	..	..	728	..	728	319	409	728	..	728	319	409
..	19081	8454	10627	14820	324	14496	7979	6517	33901	324	33577	16433	17144	
208	45031	10215	34816	27585	1761	25824	5201	20623	82391	2410	79981	16886	63095	
9	1049	184	865	831	..	831	209	622	1973	9	1964	401	1563	
835	9081	2170	6911	4854	..	4854	1897	2957	16212	835	15377	4310	11067	
..	3925	3194	731	3040	..	3040	3040	..	8060	..	8060	6707	1353	
..	1319	308	1011	5570	..	5570	1711	3859	6889	..	6889	2019	4870	
8395	53426	6764	46662	46692	136	46556	6130	40426	112239	8531	103708	13360	90348	
..	..	..	..	431	147	284	185	99	431	147	284	185	99
..	..	..	..	252	86	166	166	..	252	86	166	166	..
..	..	..	..	50	..	50	1	49	50	..	50	1	49
..	..	..	..	393	186	207	82	125	393	186	207	82	125
..	..	..	..	1360	..	1360	158	1202	1360	..	1360	158	1202
..	352	352	..	232	..	232	232	..	584	..	584	584	..	
..	..	..	..	3	..	3	3	..	3	..	3	3	..
..	..	..	..	20	..	20	6	14	20	..	20	6	14
..	840	763	77	23	..	23	23	..	863	..	863	786	77	
..	..	..	..	50	..	50	50	..	50	..	50	50	..
..	906	555	351	..	..	..	..	..	906	..	906	555	351
..	125	22	103	444	..	444	324	120	569	..	569	346	223	
..	..	..	..	6	..	6	6	..	6	..	6	6	..
..	..	..	..	63	..	63	48	15	63	..	63	48	15
..	..	..	..	21	..	21	1	20	21	..	21	1	20
..	..	..	..	15	..	15	9	6	15	..	15	9	6
96	1786	244	1542	319	..	319	64	255	2671	96	2575	343	2232	
..	..	..	..	162	..	162	96	66	162	..	162	96	66
..	447	17	430	955	40	915	679	236	1402	40	1362	696	666	
..	..	..	..	127	..	127	104	23	127	..	127	104	23
..	..	..	..	..	..	..	..	..	9619	..	9619	2044	7575
..	12561	6276	6285	..	..	..	..	..	16486	..	16486	6501	9985
468	4952	116	4836	368	..	368	14	354	10201	468	9733	268	9465	
..	8440	4474	3966	..	..	..	..	..	8440	..	8440	4474	3966
..	494	266	228	..	..	..	..	..	794	..	794	332	462
..	3048	1374	1674	..	..	..	..	..	3048	..	3048	1374	1674
..	1381	571	810	..	..	..	..	..	1546	..	1546	605	941
..	11603	8225	3378	..	..	..	..	..	11603	..	11603	8225	3378
..	8634	4232	4402	..	..	..	..	..	8634	..	8634	4232	4402
..	8994	5457	3537	..	..	..	..	..	8994	..	8994	5457	3537
..	15343	5087	10256	..	..	..	..	..	15343	..	15343	5087	10256
..	17799	4445	13354	..	..	..	..	..	17799	..	17799	4445	13354
..	22126	4108	18018	..	..	..	..	..	22126	..	22126	4108	18018
..	1000	56	944	..	..	..	..	..	1000	..	1000	56	944
*14739	*428493	*147366	*281127	189096	3247	185849	74363	111486	892633	19554	873079	289968	583111	
+85499	+31610	+53889												

MANCHESTER GROCERY AND PROVISION TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
July, 1874	353216	3682	0 2 $\frac{1}{2}$	1831	0 1 $\frac{1}{2}$	64083
Oct. „	471586	4342	0 2 $\frac{3}{16}$	6905	0 3 $\frac{1}{2}$	71341
January, 1875	285353	3692	0 3 $\frac{1}{8}$	3250	0 2 $\frac{3}{8}$	71360
April „	306720	3627	0 2 $\frac{1}{4}$	2032	0 1 $\frac{1}{4}$	52803
July „	359076	3458	0 2 $\frac{1}{4}$	3996	0 2 $\frac{5}{8}$	51573
October „	427793	3884	0 2 $\frac{1}{8}$	6379	0 3 $\frac{1}{2}$	50723
January, 1876	382947	3732	0 2 $\frac{5}{16}$	6635	0 4 $\frac{3}{16}$	56487
April „	355644	4091	0 2 $\frac{3}{8}$	5070	0 3 $\frac{7}{16}$	55040
July „	398787	4603	0 2 $\frac{3}{8}$	3975	0 2 $\frac{1}{8}$	50136
October „ (14 weeks).....	543067	4685	0 2	10514	0 4 $\frac{5}{8}$	64695
January, 1877	410139	4313	0 2 $\frac{1}{8}$	8434	0 4 $\frac{7}{8}$	68205
April „	350666	4257	0 2 $\frac{1}{8}$	2501	0 1 $\frac{5}{8}$	47424
July „	475064	4261	0 2 $\frac{1}{8}$	6848	0 3 $\frac{7}{16}$	64838
October „	513321	4157	0 2	10377	0 4 $\frac{5}{8}$	63592
January, 1878	421966	4191	0 2 $\frac{1}{8}$	6019	0 3 $\frac{1}{4}$	53790
April „	392083	4380	0 2 $\frac{1}{8}$	6127	0 3 $\frac{3}{4}$	61765
July „	401932	4401	0 2 $\frac{1}{8}$	5216	0 3	57128
October „	491527	4392	0 2 $\frac{1}{8}$	8669	0 4 $\frac{1}{4}$	59793
January, 1879	398071	4200	0 2 $\frac{1}{4}$	6490	0 3 $\frac{3}{4}$	55319
March „ (10 weeks).....	263534	3254	0 2 $\frac{7}{8}$	2790	0 2 $\frac{1}{2}$	71347
June „ (14 weeks).....	404338	4722	0 2 $\frac{3}{8}$	3659	0 2 $\frac{1}{4}$	79086
September, 1879	452049	4376	0 2 $\frac{1}{4}$	9306	0 4 $\frac{1}{4}$	61379
December, „	470686	4409	0 2 $\frac{1}{4}$	13071	0 6 $\frac{5}{8}$	71446
March, 1880.....	418000	4644	0 2 $\frac{5}{8}$	5706	0 3 $\frac{1}{4}$	95015
June „	484068	4797	0 2 $\frac{3}{8}$	4327	0 2 $\frac{1}{8}$	82832
September „	564183	4718	0 2	12086	0 5 $\frac{1}{8}$	102466
December „	532133	4752	0 2 $\frac{1}{8}$	8858	0 4	70091
March, 1881	404706	4692	0 2 $\frac{3}{4}$	5927	0 3 $\frac{1}{2}$	84602
June „	497493	4865	0 2 $\frac{1}{4}$	7256	0 3 $\frac{1}{2}$	81648
Sept. „	598864	5019	0 2	11227	0 4 $\frac{1}{2}$	84093
Dec. „	546147	5307	0 2 $\frac{1}{8}$	8050	0 3 $\frac{1}{2}$	87277
March, 1882	468027	5884	0 3	6222	0 3 $\frac{1}{8}$	107940
June „	559537	5839	0 2 $\frac{1}{2}$	6187	0 2 $\frac{1}{4}$	92310
Sept. „	617265	5704	0 2 $\frac{1}{8}$	9339	0 3 $\frac{3}{8}$	92696
Dec. „	653521	6239	0 2 $\frac{1}{4}$	8896	0 3 $\frac{1}{4}$	141191
March, 1883	558465	7029	0 3	7296	0 3 $\frac{1}{8}$	125416
June „	606478	7097	0 2 $\frac{3}{4}$	4360	0 1 $\frac{3}{8}$	130279
Sept. „	692614	6927	0 2 $\frac{3}{8}$	7514	0 2 $\frac{1}{4}$	97095
Dec. „	686852	7234	0 2 $\frac{1}{2}$	8285	0 2 $\frac{5}{8}$	109414
March, 1884	502853	7007	0 3 $\frac{1}{4}$	5493	0 2 $\frac{1}{4}$	89334
June „ (14 weeks).....	641730	7616	0 2 $\frac{3}{4}$	5262	0 1 $\frac{1}{4}$	94779
Sept. „	675845	6972	0 2 $\frac{3}{8}$	7602	0 2 $\frac{5}{8}$	104832
Dec. „	636860	6927	0 2 $\frac{1}{2}$	6536	0 2 $\frac{3}{8}$	107524

MANCHESTER GROCERY AND PROVISION TRADE.—*Con.**From the time of commencing to keep a separate Account.*

QUATERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
March, 1885	514235	7124	0 3 $\frac{1}{4}$	7455	0 3 $\frac{3}{8}$	78912
June „	578862	6746	0 2 $\frac{1}{2}$	13340	0 5 $\frac{1}{4}$	90848
Sept. „	644647	6586	0 2 $\frac{3}{8}$	10555	0 3 $\frac{7}{8}$	97421
Dec. „	638201	7028	0 2 $\frac{5}{8}$	10407	0 3 $\frac{7}{8}$	92790
March, 1886	568243	7131	0 3	8553	0 3 $\frac{1}{4}$	95156
June „	600840	7291	0 2 $\frac{7}{8}$	7454	0 2 $\frac{7}{8}$	78561
Sept. „	671578	7469	0 2 $\frac{3}{8}$	10913	0 3 $\frac{7}{8}$	104934
Dec. „	730774	7886	0 2 $\frac{1}{2}$	14461	0 4 $\frac{3}{8}$	113620
March, 1887	604978	7724	0 3	10395	0 4	103609
June „	648521	7976	0 2 $\frac{7}{8}$	8133	0 3	96828
Sept. „	761498	8248	0 2 $\frac{1}{2}$	11926	0 3 $\frac{3}{4}$	122923
Dec. „	812627	9031	0 2 $\frac{5}{8}$	15152	0 4 $\frac{3}{8}$	129565
March, 1888	673598	8387	0 2 $\frac{7}{8}$	10347	0 3 $\frac{5}{8}$	101993
June „	720959	8794	0 2 $\frac{7}{8}$	11111	0 3 $\frac{5}{8}$	109278
Sept. „	802383	8900	0 2 $\frac{3}{8}$	14345	0 4 $\frac{1}{4}$	121208
Dec. „	895285	9833	0 2 $\frac{5}{8}$	13995	0 3 $\frac{3}{4}$	139849
March, 1889	769225	9300	0 2 $\frac{7}{8}$	14235	0 4 $\frac{3}{8}$	150890
June „	839900	10001	0 2 $\frac{3}{4}$	19357	0 5 $\frac{1}{4}$	148149
Sept. „ (14 weeks).....	960271	10308	0 2 $\frac{1}{2}$	12090	0 3	116194
Dec. „	933799	10196	0 2 $\frac{1}{2}$	15770	0 4	112395
March, 1890 (12 weeks).....	724632	9399	0 3	12669	0 4 $\frac{1}{8}$	92544
June „ (14 weeks).....	887966	10711	0 2 $\frac{7}{8}$	15486	0 4 $\frac{1}{8}$	91409
Sept. „	890116	10310	0 2 $\frac{3}{4}$	16892	0 4 $\frac{1}{4}$	119560
Dec. „	1014400	11128	0 2 $\frac{5}{8}$	20937	0 4 $\frac{7}{8}$	123432
March, 1891	946982	10971	0 2 $\frac{3}{4}$	19441	0 4 $\frac{7}{8}$	101661
June „	936125	11039	0 2 $\frac{3}{4}$	16001	0 4	99479
Sept. „	1057205	11427	0 2 $\frac{1}{2}$	19517	0 4 $\frac{3}{8}$	145406
Dec. „	1172257	13183	0 2 $\frac{5}{8}$	19923	0 4	192161
March, 1892	1034457	12992	0 3	15722	0 3 $\frac{5}{8}$	184174
June „	1029284	13727	0 3 $\frac{1}{8}$	13622	0 3 $\frac{1}{8}$	154057
	44738454	495274	0 2 $\frac{5}{8}$	696637	0 3 $\frac{5}{8}$	....

MANCHESTER DRAPERY TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
January, 1874	10575	348	0 8	201	0 4 ⁹ / ₁₆	....	....	11568
April "	12712	564	0 10 ⁵ / ₈	436	0 8 ³ / ₁₆	....	....	19409
July "	12991	867	1 4	952	1 5 ³ / ₈	....	....	26002
October "	24185	1223	1 0 ¹ / ₂	....	....	560	0 5 ¹ / ₂	31475
January, 1875	21402	1218	1 1 ³ / ₁₆	416	0 4 ⁵ / ₁₆	....	....	36824
April "	26273	1319	1 0 ¹ / ₁₆	239	0 2 ⁵ / ₁₆	....	....	37905
July "	30513	1748	1 1 ⁷ / ₈	376	0 3	....	....	47101
October "	36071	2041	1 1 ⁹ / ₁₆	246	0 1 ⁵ / ₈	....	....	65230
January, 1876	36629	2156	1 2 ¹ / ₈	....	....	141	0 0 ⁷ / ₈	72408
April "	41708	2397	1 1 ³ / ₄	60	0 0 ⁵ / ₁₆	....	....	74071
July "	32996	2509	1 6 ¹ / ₄	....	....	634	0 4 ⁵ / ₁₆	73833
October " (14 weeks)	38977	2370	1 2 ³ / ₈	....	....	453	0 2 ³ / ₈	70893
January, 1877	33402	2115	1 3 ¹ / ₅	....	....	393	0 2 ¹ / ₅	69267
April "	31620	2316	1 5 ⁹ / ₁₆	....	....	1678	1 0 ¹ / ₁₆	64349
July "	25640	2197	1 8 ⁹ / ₁₆	....	....	1115	0 10 ⁷ / ₁₆	66539
October "	31389	2148	1 4 ⁷ / ₁₆	....	....	154	0 1 ³ / ₁₆	62442
January, 1878	36269	2218	1 2 ⁵ / ₈	....	....	1197	0 8	48511
April "	37000	2162	1 2	316	0 2	....	....	44995
July "	31486	2186	1 4 ⁵ / ₈	60	0 0 ¹ / ₁₆	....	....	43849
October "	33703	2146	1 3 ¹ / ₄	191	0 1 ¹ / ₁₆	....	....	44662
January, 1879	32557	2024	1 2 ⁷ / ₈	68	0 0 ³ / ₁₆	....	....	44439
March " (10 weeks)	25869	1622	1 3	193	0 1 ¹ / ₄	....	....	44151
June " (14 weeks)	33171	2116	1 3 ¹ / ₄	619	0 4 ¹ / ₁₆	....	....	45960
Sept. "	30136	2022	1 4	168	0 1 ¹ / ₁₆	....	....	44446
Dec. "	37648	2057	1 1	694	0 4 ¹ / ₁₆	....	....	43225
March, 1880	37484	2168	1 1 ⁷ / ₈	472	0 3	....	....	41788
June "	34195	2035	1 2 ¹ / ₄	374	0 2 ⁵ / ₁₆	....	....	43792
Sept. "	30734	2264	1 5 ³ / ₈	201	0 1 ¹ / ₂	....	....	45664
Dec. "	37008	2044	1 1 ¹ / ₄	1267	0 8	....	....	44105
March, 1881	32449	2078	1 3 ³ / ₁₆	564	0 4 ¹ / ₁₆	....	....	40245
June "	30939	2002	1 3 ¹ / ₁₆	453	0 3 ¹ / ₁₆	....	....	43533
Sept. "	31825	2060	1 3 ¹ / ₁₆	322	0 2 ¹ / ₁₆	....	....	43315
Dec. "	37701	2028	1 0 ⁵ / ₈	593	0 3 ¹ / ₁₆	....	....	42203
March, 1882	34875	2064	1 2 ¹ / ₁₆	820	0 5 ³ / ₁₆	....	....	39171
June "	32539	2017	1 2 ⁷ / ₁₆	809	0 5 ¹ / ₁₆	....	....	44073
Sept. "	33983	2083	1 2 ⁵ / ₁₆	535	0 3 ¹ / ₁₆	....	....	42467
Dec. "	41622	2173	1 0 ¹ / ₂	1340	0 7 ¹ / ₁₆	....	....	40854
March, 1883	38527	2250	1 2	325	0 2	....	....	39420
June "	33329	2098	1 3	1165	0 8 ³ / ₁₆	....	....	38606
Sept. "	38935	2241	1 1 ³ / ₁₆	856	0 5 ¹ / ₁₆	....	....	43097
Dec. "	46206	2387	1 0 ³ / ₈	1825	0 9 ³ / ₁₆	....	....	41365
March, 1884	38641	1999	1 0 ³ / ₈	767	0 4 ³ / ₁₆	....	....	33888
June " (14 weeks)	39597	2196	1 1 ¹ / ₁₆	827	0 5	....	....	37060
Sept. "	41661	2090	1 0	1327	0 7 ⁵ / ₁₆	....	....	40354
Dec. "	45871	2080	0 10 ⁷ / ₈	2362	1 0 ¹ / ₄	....	....	38026

NOTE.—To December, 1883, the figures include Woollens and Ready-Mades Department.

MANCHESTER DRAPERY TRADE.—*Con.**From the time of commencing to keep a separate Account.*

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
March, 1885.....	44878	2249	1 0	1608	0 8 $\frac{1}{2}$	....	....	37137
June „	36821	2133	1 17 $\frac{7}{8}$	1208	0 7 $\frac{1}{2}$	....	....	40780
Sept. „	42652	2233	1 0 $\frac{1}{2}$	1469	0 8 $\frac{1}{4}$	....	....	46513
Dec. „	48882	2452	1 0	1102	0 5 $\frac{3}{8}$	....	....	44948
March, 1886	47873	2352	0 11 $\frac{3}{4}$	1130	0 5 $\frac{5}{8}$	....	....	43609
June „	44898	2272	1 0 $\frac{1}{8}$	1477	0 7 $\frac{7}{8}$	....	....	46093
Sept. „	49080	2492	1 0 $\frac{1}{8}$	1009	0 4 $\frac{1}{8}$	....	....	50143
Dec. „	53288	2612	0 11 $\frac{1}{4}$	1717	0 7 $\frac{1}{8}$	....	....	54130
March, 1887	50308	2519	1 0	1379	0 6 $\frac{1}{4}$	....	....	55071
June „	48306	2666	1 1 $\frac{1}{8}$	691	0 3 $\frac{3}{8}$	....	....	61237
Sept. „	50232	2716	1 0 $\frac{1}{4}$	714	0 3 $\frac{3}{8}$	....	....	64263
Dec. „	61859	2897	0 11 $\frac{1}{8}$	840	0 3 $\frac{1}{4}$	....	....	59695
March, 1888	57800	2748	0 11 $\frac{3}{8}$	1070	0 4 $\frac{3}{8}$	....	....	59101
June „	55898	2858	1 0 $\frac{1}{4}$	1166	0 5	....	....	57459
Sept. „	55495	2791	1 0	344	0 1 $\frac{1}{2}$	....	....	62591
Dec. „	63084	2953	0 11 $\frac{1}{8}$	2211	0 8 $\frac{3}{8}$	....	....	62110
March, 1889	59112	2922	0 11 $\frac{3}{4}$	1418	0 5 $\frac{3}{8}$	....	....	69413
June „	62194	3127	1 0	380	0 1 $\frac{1}{2}$	....	....	71854
Sept. „ (14 weeks) ..	66746	3593	1 0 $\frac{7}{8}$	1319	0 4 $\frac{5}{8}$	....	....	84102
Dec. „	68397	3526	1 0 $\frac{1}{4}$	1422	0 4 $\frac{7}{8}$	....	....	87849
March, 1890 (12 weeks) ..	70839	3632	1 0 $\frac{1}{4}$	1150	0 3 $\frac{7}{8}$	....	....	89190
June „ (14 weeks) ..	79680	4189	1 0 $\frac{1}{8}$	2245	0 6 $\frac{3}{4}$	....	....	90891
Sept. „	73278	3849	1 0 $\frac{1}{4}$	190	0 0 $\frac{1}{4}$	....	....	89311
Dec. „	87568	3942	0 10 $\frac{1}{4}$	3406	0 9 $\frac{1}{4}$	....	....	84739
March, 1891	84298	3901	0 11	868	0 2 $\frac{3}{8}$	....	....	81873
June „	77664	4013	1 0 $\frac{1}{8}$	3098	0 9 $\frac{1}{2}$	....	....	83681
Sept. „	83583	4159	0 11 $\frac{1}{8}$	1331	0 3 $\frac{1}{4}$	....	....	87861
Dec. „	93568	4233	0 10 $\frac{1}{4}$	2618	0 6 $\frac{3}{8}$	....	....	82524
March, 1892	92107	4508	0 11 $\frac{1}{8}$	2326	0 6	....	....	82022
June „	86610	4717	1 1	2142	0 5 $\frac{7}{8}$	....	....	87115
	3380141	183700	1 1	65487	....	6325	....	....
Less Depreciation allowed, see Disposal of Profit Account, October, 1877....			£4757					
„ Loss			6325	11082	....		
Leaves Net Profit .....			....	54405	0 3 $\frac{1}{4}$			

NOTE.—To December, 1883, the figures include Woollens and Ready-Mades Department.

MANCHESTER WOOLLENS AND READY-MADES DEPARTMENT.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
		£	s. d.	£	s. d.	£	s. d.	
March 1884	4504	307	1 4 $\frac{1}{2}$	1	....	....	....	4839
June „ (14 weeks) ..	7243	341	0 11 $\frac{1}{4}$	226	0 7 $\frac{1}{2}$	....	....	4212
September „	4272	201	1 4 $\frac{1}{2}$	408	1 10 $\frac{1}{2}$	....	....	4720
December „	4349	272	1 3	....	....	226	1 0 $\frac{3}{8}$	4407
March 1885	5748	294	1 0 $\frac{1}{4}$	159	0 6 $\frac{1}{2}$	....	....	5031
June „	6186	307	0 11 $\frac{1}{4}$	195	0 7 $\frac{1}{2}$	....	....	4151
September „	4476	310	1 4 $\frac{1}{2}$	61	0 3 $\frac{1}{4}$	....	....	5723
December „	4800	338	1 4 $\frac{1}{2}$	....	....	79	0 3 $\frac{1}{4}$	5242
March 1886	5129	374	1 5 $\frac{1}{4}$	....	....	170	0 7 $\frac{1}{8}$	6961
June „	7542	359	0 11 $\frac{3}{4}$	401	1 0 $\frac{3}{4}$	....	....	5661
September „	4363	331	1 6 $\frac{1}{2}$	77	0 4 $\frac{1}{2}$	....	....	6641
December „	5139	353	1 4 $\frac{1}{2}$	19	0 0 $\frac{1}{2}$	....	....	6275
March 1887	5684	357	1 3	....	....	84	0 3 $\frac{1}{2}$	7060
June „	6213	354	1 1 $\frac{1}{2}$	203	6 7 $\frac{3}{4}$	....	....	6023
September „	4512	351	1 6 $\frac{1}{2}$	....	....	43	0 2 $\frac{1}{4}$	6335
December „	5411	365	1 4 $\frac{1}{2}$	....	....	78	0 3 $\frac{3}{8}$	6112
March 1888	5565	370	1 3 $\frac{1}{2}$	....	....	173	0 7 $\frac{1}{8}$	7945
June „	7193	396	1 1 $\frac{1}{2}$	243	0 8	....	....	6654
September „	4756	379	1 7	....	....	111	0 5 $\frac{1}{2}$	7094
December „	5533	402	1 5 $\frac{3}{4}$	16	0 0 $\frac{5}{8}$	....	....	8450
March 1889	5865	405	1 4 $\frac{1}{4}$	....	....	159	0 6 $\frac{3}{8}$	10971
June „	8131	418	1 0 $\frac{1}{4}$	314	0 9 $\frac{1}{4}$	....	....	11092
September „ (14 weeks) ..	6293	525	1 8	....	....	111	0 4 $\frac{1}{2}$	11231
December „	6524	497	1 6 $\frac{1}{4}$	....	....	256	0 9 $\frac{1}{8}$	12277
March 1890 (12 weeks) ..	6315	497	1 6 $\frac{1}{8}$	....	....	416	1 3 $\frac{3}{8}$	11536
June „ (14 weeks) ..	8244	552	1 4	67	0 1 $\frac{7}{8}$	....	....	11504
September „	5064	494	1 11 $\frac{1}{2}$	....	....	599	2 4 $\frac{1}{2}$	11975
December „	7070	552	1 6 $\frac{1}{2}$	....	....	336	0 11 $\frac{1}{2}$	11463
March 1891	7896	584	1 5 $\frac{1}{2}$	....	....	805	2 0 $\frac{1}{2}$	13614
June „	8896	613	1 4 $\frac{1}{2}$	9	0 0 $\frac{1}{4}$	....	....	13880
Sept. „	7126	609	1 8 $\frac{1}{2}$	....	....	746	2 1	17718
Dec. „	8028	659	1 7 $\frac{1}{2}$	....	....	752	1 10 $\frac{3}{4}$	19761
March 1892	9132	758	1 7 $\frac{1}{2}$	....	....	623	1 4 $\frac{1}{4}$	20913
June „	12597	828	1 3 $\frac{1}{4}$	311	0 5 $\frac{1}{8}$	....	....	19944
	215799	14852	1 4 $\frac{1}{2}$	2710	....	5767	....	....
				Less Profit .....	....	2710	....
				Leaves Net Loss ....	....	3057	3 $\frac{3}{4}$	

MANCHESTER BOOT AND SHOE TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	d.	£	d.	£	d.	£
January, 1874.....	5506	204	8 $\frac{3}{4}$	1	..	..	..	4715
April „	7529	231	7 $\frac{1}{4}$	352	11 $\frac{1}{4}$	..	..	4856
July „	10794	288	6 $\frac{3}{4}$	214	4 $\frac{1}{4}$	..	..	4812
October „	8877	321	8 $\frac{3}{8}$	..	..	95	2 $\frac{1}{2}$	4897
January, 1875.....	10057	289	6 $\frac{1}{2}$	277	6 $\frac{3}{4}$	..	..	5197
April „	12240	310	6	341	6 $\frac{3}{4}$	..	..	4614
July „	14275	321	5 $\frac{1}{4}$	16	4	..	..	5359
October „	15234	351	5 $\frac{1}{2}$	341	5 $\frac{3}{8}$	..	..	7474
January, 1876.....	12136	344	6 $\frac{1}{2}$	77	1 $\frac{1}{2}$	..	..	7711
April „	13777	418	7 $\frac{5}{16}$	187	3 $\frac{1}{4}$	..	..	8517
July „	15259	474	7 $\frac{1}{16}$	172	2 $\frac{3}{4}$	..	..	7894
October „ (14 weeks)	15893	472	7 $\frac{1}{8}$	168	2 $\frac{1}{2}$	..	..	7243
January, 1877.....	12378	447	8 $\frac{3}{8}$	59	1 $\frac{1}{2}$	..	..	6082
April „	14018	461	7 $\frac{1}{8}$	220	3 $\frac{3}{4}$	..	..	6973
July „	16969	516	6 $\frac{5}{16}$	332	4 $\frac{1}{16}$	..	..	7994
October „	14185	498	8 $\frac{7}{16}$	132	2 $\frac{1}{4}$	..	..	7594
January, 1878.....	13132	500	9 $\frac{1}{8}$	102	1 $\frac{5}{8}$	..	..	7935
April „	13591	572	10	153	2 $\frac{3}{4}$	..	..	8349
July „	17913	564	7 $\frac{1}{2}$	417	5 $\frac{1}{2}$	..	..	9646
October „	15585	580	8 $\frac{5}{8}$	340	5 $\frac{1}{4}$	..	..	9658
January, 1879.....	12238	476	9 $\frac{1}{4}$	..	..	143	2 $\frac{3}{4}$	10242
March „ (10 weeks)	9835	403	10 $\frac{1}{8}$	234	6 $\frac{3}{8}$	..	..	10517
June „ (14 weeks)	17443	579	8	415	5 $\frac{1}{4}$	..	..	10998
September „	14150	583	9 $\frac{7}{8}$	119	2	..	..	10709
December „	14842	570	9 $\frac{1}{4}$	..	..	16	$\frac{1}{4}$	10964
March, 1880.....	15095	585	9 $\frac{1}{4}$	479	7 $\frac{5}{8}$	..	..	10301
June „	17613	609	8 $\frac{1}{4}$	147	2	..	..	10688
September „	15069	600	9 $\frac{1}{2}$	125	2	..	..	10250
December „	14362	593	10	4	..	..	..	11484
March 1881.....	15375	596	9 $\frac{1}{4}$	199	3	..	..	10107
June „	21621	660	7 $\frac{1}{4}$	335	3 $\frac{3}{4}$	..	..	11254
September „	17362	630	8 $\frac{3}{8}$	184	2 $\frac{3}{8}$	..	..	11542
December „	17024	606	8 $\frac{1}{2}$	124	1 $\frac{3}{8}$	..	..	11377
March, 1882.....	16838	637	9	121	1 $\frac{3}{4}$	..	..	10945
June „	22134	660	7 $\frac{1}{4}$	384	4 $\frac{1}{4}$	..	..	12395
September „	18323	637	8 $\frac{1}{4}$	419	5 $\frac{1}{4}$	..	..	12263
December „	18801	649	8 $\frac{1}{4}$	322	4	..	..	12564
March, 1883.....	20091	704	8 $\frac{3}{8}$	183	2 $\frac{1}{8}$	..	..	15967
June „	25186	772	7 $\frac{1}{4}$	537	5	..	..	13817
September „	20457	701	8 $\frac{1}{8}$	355	4 $\frac{1}{4}$	..	..	13335
December „	20322	705	8 $\frac{1}{4}$	186	2 $\frac{1}{8}$	..	..	12938
March, 1884.....	20277	687	8 $\frac{1}{4}$	292	3 $\frac{3}{8}$	..	..	13955
June „ (14 weeks)	31093	881	6 $\frac{3}{4}$	567	4 $\frac{3}{8}$	..	..	14274
September „	26084	802	7 $\frac{3}{8}$	372	3 $\frac{3}{8}$	..	..	14675
December „	22240	780	8 $\frac{3}{8}$	355	3 $\frac{3}{4}$	..	..	16576

MANCHESTER BOOT AND SHOE TRADE.—*Continued.**From the time of commencing to keep a separate Account.*

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	d.	£	d.	£	d.	£
March, 1885.....	26485	930	8 ³ / ₈	80	0 ⁵ / ₈	..	..	17766
June "	31199	919	7	535	4	..	..	16088
September "	24394	840	8 ¹ / ₄	504	4 ⁷ / ₈	..	..	16240
December "	24677	907	8 ¹ / ₄	276	2 ³ / ₈	..	..	16074
March, 1886.....	27103	890	7 ⁷ / ₈	392	3 ³ / ₈	..	..	17581
June "	38429	1033	6 ² / ₄	606	3 ³ / ₄	..	..	17772
September "	27000	968	8 ¹ / ₂	876	7 ¹ / ₄	..	..	17066
December "	28900	881	7 ¹ / ₄	893	7 ³ / ₈	..	..	16578
March, 1887.....	28969	952	7 ⁷ / ₈	704	5 ³ / ₄	..	..	21418
June "	38380	1148	7 ¹ / ₈	1174	7 ¹ / ₄	..	..	21044
September "	28387	978	8 ¹ / ₄	608	5 ⁵ / ₈	..	..	19563
December "	30363	992	7 ¹ / ₄	597	4 ⁵ / ₈	..	..	19727
March, 1888.....	28807	1224	10 ¹ / ₂	123	1	..	..	24986
June "	44148	1281	6 ² / ₄	1181	6 ³ / ₈	..	..	23255
September "	32611	1181	8 ³ / ₈	884	6 ¹ / ₂	..	..	24480
December "	33622	1178	8 ³ / ₈	752	5 ¹ / ₄	..	..	22680
March, 1889.....	36117	1358	8 ⁷ / ₈	417	2 ³ / ₄	..	..	25793
June "	49279	1415	6 ⁵ / ₄	1392	6 ² / ₄	..	..	22889
September " (14 weeks)	37634	1380	8 ³ / ₄	929	5 ⁷ / ₈	..	..	26885
December "	39972	1358	8 ¹ / ₈	1034	6 ¹ / ₈	..	..	24067
March, 1890 (12 weeks)	40929	1391	8 ¹ / ₈	811	4 ³ / ₄	..	..	32937
June " (14 weeks)	60371	1662	6 ¹ / ₂	1802	7 ¹ / ₈	..	..	29680
September "	41042	1447	8 ³ / ₈	1013	5 ⁵ / ₈	..	..	29032
December "	46188	1483	7 ³ / ₈	1331	6 ⁷ / ₈	..	..	32095
March, 1891.....	56667	1780	7 ¹ / ₂	663	2 ³ / ₄	..	..	41852
June "	59897	1842	7 ⁵ / ₈	1628	6 ¹ / ₂	..	..	37391
September "	50425	1757	8 ¹ / ₄	1292	6	..	..	39962
December "	51191	1815	8 ¹ / ₂	1385	6 ³ / ₈	..	..	36875
March, 1892.....	56859	2238	9 ³ / ₈	680	2 ³ / ₄	..	..	44703
June "	73503	2523	8 ¹ / ₈	1286	4 ¹ / ₈	..	..	44749
	1915776	63997	8	36197	..	254	..	..
Less Loss.....				254	..			
Leaves Net Profit.....				35943				

MANCHESTER FURNISHING TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
October, 1876 (14 weeks)	3036	188	1 2 $\frac{3}{4}$	..	..	57	0 4	2843
January, 1877	2908	217	1 6	5	0 0 $\frac{3}{8}$	..	..	2571
April "	3813	250	1 3 $\frac{3}{4}$	37	0 3	..	..	2423
July "	3426	216	1 3 $\frac{3}{8}$	..	..	24	0 1 $\frac{5}{8}$	2274
October "	4166	242	1 1 $\frac{1}{2}$	45	0 2 $\frac{9}{16}$	..	..	2343
January, 1878.....	4059	276	1 4 $\frac{5}{6}$	7	0 0 $\frac{3}{8}$	..	..	2286
April "	4397	310	1 4 $\frac{1}{2}$	121	0 6	..	..	2245
July "	4141	291	1 4 $\frac{1}{4}$	14	0 0 $\frac{7}{8}$	..	..	2272
October "	4320	307	1 5	29	0 1 $\frac{5}{8}$	..	..	2279
January, 1879.....	4516	277	1 2 $\frac{5}{8}$	..	..	24	0 1 $\frac{1}{4}$	2421
March " (10 weeks)	3624	218	1 2	26	0 1 $\frac{1}{4}$	..	..	2837
June " (14 weeks)	5249	325	1 3 $\frac{5}{8}$	30	0 1 $\frac{1}{4}$	..	..	3074
September "	4291	280	1 3 $\frac{1}{4}$	..	..	33	0 1 $\frac{1}{8}$	3163
December "	5197	285	1 1	37	0 1 $\frac{1}{4}$	..	..	3524
March, 1880.....	6530	327	1 0	29	0 1	..	..	4013
June "	5144	347	1 4 $\frac{1}{2}$	4	0 0 $\frac{1}{2}$	..	..	4318
September "	5922	313	1 0 $\frac{3}{8}$	102	0 4 $\frac{3}{8}$	..	..	3969
December "	6647	330	0 11 $\frac{7}{8}$	269	0 9 $\frac{3}{8}$	..	..	4307
March, 1881.....	6209	333	1 0 $\frac{7}{8}$	..	..	14	0 0 $\frac{1}{2}$	4146
June "	6085	318	1 0 $\frac{1}{2}$	91	0 3 $\frac{1}{2}$	..	..	4496
Sept. "	5736	320	1 1 $\frac{1}{4}$	..	..	29	0 1 $\frac{1}{8}$	4039
December "	6814	322	0 11 $\frac{1}{4}$	123	0 4 $\frac{1}{4}$	..	..	3971
March, 1882.....	6783	351	1 0 $\frac{3}{8}$	115	0 4	..	..	4122
June "	6786	344	1 0 $\frac{1}{2}$	82	0 2 $\frac{7}{8}$	..	..	3827
Sept. "	7293	419	1 1 $\frac{1}{4}$	61	0 2	..	..	3721
Dec. "	8159	401	0 11 $\frac{1}{4}$	..	..	39	0 1 $\frac{1}{8}$	3630
March, 1883.....	7812	439	1 1 $\frac{1}{8}$	95	0 2 $\frac{7}{8}$	..	..	3845
June "	7936	455	1 1 $\frac{1}{4}$	99	0 2 $\frac{1}{4}$	..	..	4308
September "	7954	472	1 2 $\frac{1}{4}$	32	0 0 $\frac{1}{2}$	..	..	4337
December "	11102	512	6 11	197	0 4 $\frac{1}{4}$	..	..	4274
March, 1884.....	9850	540	1 1 $\frac{1}{2}$	204	0 4 $\frac{7}{8}$	..	..	5100
June " (14 weeks)	11280	595	1 0 $\frac{2}{3}$	..	..	26	0 0 $\frac{1}{2}$	5170
September "	11002	566	1 0 $\frac{1}{4}$	205	0 4 $\frac{3}{8}$	..	..	5072
December "	12179	552	0 10 $\frac{7}{8}$	290	0 5 $\frac{3}{8}$	..	..	5433
March, 1885.....	13126	626	0 11 $\frac{3}{8}$	329	0 6	..	..	5973
June "	12228	611	0 11	123	0 2 $\frac{3}{8}$	..	..	6145
September "	12539	582	0 11 $\frac{1}{4}$	166	0 3 $\frac{3}{8}$	..	..	5771
December "	13345	596	0 10 $\frac{3}{8}$	275	0 4 $\frac{3}{8}$	..	..	5817
March 1886.....	13929	624	0 10 $\frac{5}{8}$	207	0 3 $\frac{1}{4}$	..	..	5773
June "	15251	684	0 10 $\frac{1}{4}$	374	0 5 $\frac{7}{8}$	..	..	6234
September "	15277	650	0 10	182	0 2 $\frac{3}{4}$	..	..	5654
December "	17833	699	0 9 $\frac{3}{8}$	366	0 4 $\frac{3}{8}$	..	..	6041

MANCHESTER FURNISHING TRADE.—*Con.**From the time of commencing to keep a separate Account.*

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
March, 1887.....	17284	676	0 9 $\frac{3}{8}$	277	0 3 $\frac{3}{8}$	..	..	7124
June „	18037	758	0 10	361	0 4 $\frac{1}{4}$	..	..	7335
September „	16546	956	1 1 $\frac{3}{4}$	79	0 1 $\frac{1}{8}$	..	..	8453
December „	21065	1107	1 0 $\frac{1}{2}$	229	0 2 $\frac{1}{2}$	..	..	9497
March, 1888.....	20315	1196	1 2 $\frac{1}{8}$	168	0 1 $\frac{7}{8}$	..	..	9372
June „	21172	1189	1 1 $\frac{3}{8}$	..	..	90	0 1	8851
September „	20205	1158	1 1 $\frac{3}{4}$	138	0 1 $\frac{1}{2}$	..	..	7944
December „	23792	1212	1 0 $\frac{5}{8}$	330	0 3 $\frac{1}{4}$	..	..	8548
March, 1889.....	21172	1230	1 1 $\frac{7}{8}$	33	0 0 $\frac{1}{4}$	..	..	9177
June „	23523	1233	1 0 $\frac{1}{2}$	494	0 5	..	..	8985
September „ (14 weeks)	23318	1229	1 0 $\frac{3}{8}$	220	0 2 $\frac{1}{4}$	..	..	7990
December „	28150	1230	0 10 $\frac{3}{8}$	689	0 5 $\frac{5}{8}$	..	..	9770
March, 1890 (12 weeks)	24872	1194	0 11 $\frac{1}{8}$	463	0 4 $\frac{3}{8}$	..	..	11021
June „ (14 weeks)	33177	1430	0 10 $\frac{1}{4}$	655	0 4 $\frac{1}{4}$	..	..	11473
September „	28968	1354	0 11 $\frac{5}{8}$	369	0 3	..	..	10544
December „	35644	1411	0 9 $\frac{1}{2}$	864	0 5 $\frac{3}{4}$	..	..	12930
March, 1891.....	32981	1500	0 10 $\frac{7}{8}$	360	0 2 $\frac{1}{8}$	..	..	13513
June „	32471	1482	0 10 $\frac{7}{8}$	359	0 2 $\frac{7}{8}$	..	..	14285
September „	33398	1466	0 10 $\frac{1}{2}$	396	0 2 $\frac{3}{4}$	..	..	12812
December „	38256	1545	0 9 $\frac{5}{8}$	893	0 5 $\frac{1}{2}$	..	..	12567
March, 1892.....	33409	1747	1 0 $\frac{1}{2}$	..	..	26	0 0 $\frac{1}{8}$	13557
June „	37473	2036	1 1	296	0 1 $\frac{7}{8}$	..	..	13883
	913172	45379	0 11 $\frac{7}{8}$	12084	..	362	..	..
		Less Loss.....		362	..			
		Leaves Net Profit		11722	0 3			

NEWCASTLE BRANCH GROCERY AND PROVISION TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
April, 1876	131789	1791	0 3 $\frac{1}{4}$	1768	0 3 $\frac{1}{5}$	..	..	26712
July "	124393	1938	0 3 $\frac{3}{4}$	1161	0 2 $\frac{1}{2}$	..	..	32241
October, 1876 (14 weeks)	152237	2036	0 3 $\frac{1}{5}$	766	0 1 $\frac{1}{5}$	..	..	40908
January, 1877	120825	1962	0 3 $\frac{7}{8}$	836	0 1 $\frac{3}{5}$	..	..	34591
April "	132575	2053	0 3 $\frac{1}{5}$	1389	0 2	..	..	30086
July "	141614	1990	0 3 $\frac{3}{4}$	1218	0 2 $\frac{1}{10}$	..	..	22718
October "	140902	2001	0 3 $\frac{3}{8}$	919	0 1	..	..	29594
January, 1878	126692	2169	0 4 $\frac{1}{16}$	613	0 1 $\frac{1}{5}$	..	..	28996
April "	120300	2028	0 4	983	0 2	..	..	26039
July "	112256	1898	0 4	647	0 1 $\frac{3}{8}$	..	..	20350
October "	111069	1679	0 3	903	0 1 $\frac{7}{8}$	..	..	24383
May, 1879	113972	1797	0 3 $\frac{3}{8}$	635	0 1 $\frac{1}{4}$	..	..	22789
March " (10 weeks)	85774	1315	0 3 $\frac{3}{8}$	2648	0 7 $\frac{1}{8}$	..	..	25284
June " (14 weeks)	113673	1886	0 3 $\frac{7}{8}$	1470	0 3	..	..	21031
September "	119668	1697	0 3 $\frac{3}{8}$	..	..	167	0 0 $\frac{1}{4}$	29290
December "	145993	1925	0 3 $\frac{3}{8}$	3283	0 5 $\frac{3}{8}$	..	..	49145
March, 1880	146614	2064	0 3 $\frac{3}{8}$	1023	0 1 $\frac{5}{8}$	..	..	40786
June "	145848	1905	0 3 $\frac{3}{8}$	734	0 1 $\frac{1}{4}$	..	..	25906
September "	142258	1858	0 3 $\frac{1}{8}$	1185	0 2	..	..	33883
December "	153944	2041	0 3 $\frac{3}{8}$	1694	0 2 $\frac{5}{8}$	..	..	44398
March, 1881	152124	2254	0 3 $\frac{1}{2}$	2699	0 4 $\frac{1}{4}$	..	..	41400
June "	169531	2098	0 2 $\frac{7}{8}$	1759	0 2 $\frac{3}{4}$	..	..	48127
Sept. "	191300	2187	0 2 $\frac{3}{4}$	3600	0 4 $\frac{1}{2}$	..	..	54764
Dec. "	190382	2382	0 3	1238	0 1 $\frac{1}{2}$	..	..	54648
March, 1882	181358	2486	0 3 $\frac{1}{4}$	1029	0 1 $\frac{1}{4}$	..	..	49740
June "	190600	2418	0 3 $\frac{3}{8}$	2488	0 3 $\frac{1}{8}$	..	..	49724
Sept. "	204549	2519	0 2 $\frac{5}{8}$	3520	0 4 $\frac{1}{8}$	..	..	52044
Dec. "	218500	2675	0 2 $\frac{7}{8}$	1704	0 1 $\frac{5}{8}$	..	..	65330
March, 1883	196039	2741	0 3 $\frac{1}{4}$	1467	0 1 $\frac{3}{4}$	..	..	66285
June "	208842	2751	0 3 $\frac{1}{8}$	3226	0 3 $\frac{3}{8}$	..	..	65103
Sept. "	230513	2582	0 2 $\frac{3}{8}$	3011	0 3 $\frac{1}{8}$	..	..	44265
Dec. "	236203	2711	0 2 $\frac{3}{4}$	2772	0 2 $\frac{1}{4}$	..	..	55152
March, 1884	222807	2806	0 3	2954	0 3 $\frac{1}{8}$	..	..	55878
June " (14 weeks) ..	240710	2944	0 2 $\frac{7}{8}$	2468	0 2 $\frac{3}{8}$	..	..	41760
Sept. "	235087	2822	0 2 $\frac{1}{4}$	4468	0 4 $\frac{1}{2}$	..	..	48207
Dec. "	232199	2823	0 2 $\frac{7}{8}$	2561	0 2 $\frac{3}{8}$	..	..	65158
March, 1885	216816	2996	0 3 $\frac{1}{4}$	2913	0 3 $\frac{1}{8}$	..	..	65563
June "	232467	3145	0 3 $\frac{1}{8}$	4953	0 5 $\frac{1}{8}$	..	..	79425
Sept. "	240409	2888	0 2 $\frac{7}{8}$	3462	0 3 $\frac{3}{8}$	..	..	70555
Dec. "	246850	3046	0 2 $\frac{7}{8}$	3094	0 3	..	..	53546
March, 1886	220254	2827	0 3	3066	0 3 $\frac{1}{4}$	..	..	46224
June "	223551	2938	0 3 $\frac{1}{8}$	4453	0 4 $\frac{1}{8}$	..	..	55673
Sept. "	244049	3127	0 3	5281	0 5 $\frac{1}{4}$	..	..	68142
Dec. "	262024	3429	0 3 $\frac{1}{8}$	5994	0 5 $\frac{3}{8}$	..	..	71265

NEWCASTLE BRANCH GROCERY AND PROVISION TRADE.—*Con.**From the time of commencing to keep a separate Account.*

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
March, 1887	229481	3698	0 3 $\frac{3}{4}$	4094	0 4 $\frac{1}{4}$	..	..	72331
June „	238169	3608	0 3 $\frac{3}{4}$	2198	0 2 $\frac{1}{8}$	..	..	62551
Sept. „	248900	3250	0 3 $\frac{1}{4}$	2136	0 2	..	..	63501
Dec. „	249598	3664	0 3 $\frac{1}{2}$	2598	0 2 $\frac{3}{8}$	..	..	59632
March, 1888	232299	3387	0 3 $\frac{1}{2}$	3053	0 3 $\frac{1}{8}$	..	..	58962
June „	242155	3545	0 3	2127	0 2	..	..	51199
Sept. „	264313	3450	0 3 $\frac{1}{8}$	6454	0 5 $\frac{3}{4}$	..	..	71300
Dec. „	288761	3743	0 3	7509	0 6 $\frac{1}{8}$	..	..	65838
March, 1889	248673	3627	0 3 $\frac{3}{8}$	1668	0 1 $\frac{1}{4}$	..	..	52708
June „	261128	3570	0 3 $\frac{1}{4}$	5826	0 5 $\frac{1}{4}$	..	..	42024
Sept. „ (14 weeks) ..	291085	3657	0 3	4407	0 3 $\frac{5}{8}$	..	..	47743
Dec. „	299565	4093	0 3 $\frac{1}{4}$	6520	0 5 $\frac{1}{8}$	..	..	55671
March, 1890 (12 weeks) ..	243911	3421	0 3 $\frac{1}{4}$	5001	0 4 $\frac{7}{8}$	..	..	45135
June „ (14 weeks) ..	302723	3983	0 3 $\frac{1}{8}$	6216	0 4 $\frac{5}{8}$	..	..	34939
Sept. „	296599	3759	0 3	7301	0 5 $\frac{7}{8}$	..	..	39664
Dec. „	330638	3984	0 2 $\frac{7}{8}$	7978	0 5 $\frac{3}{4}$	..	..	42136
March, 1891	305909	4063	0 3 $\frac{1}{8}$	7047	0 5 $\frac{1}{2}$	..	..	44873
June „	336379	4125	0 2 $\frac{5}{8}$	8605	0 6 $\frac{1}{8}$	..	..	35243
Sept. „	377646	4234	0 2 $\frac{5}{8}$	8594	0 5 $\frac{3}{4}$	..	..	43564
Dec. „	411915	4522	0 2 $\frac{5}{8}$	7234	0 4 $\frac{1}{8}$	..	..	54737
March, 1892	373558	4570	0 2 $\frac{7}{8}$	7644	0 4 $\frac{7}{8}$	..	..	58340
June „	343857	4566	0 3 $\frac{1}{8}$	6817	0 4 $\frac{3}{4}$	..	..	54424
	14186827	188147	0 3 $\frac{1}{8}$	219082	..	167	..	..
				Less Loss	167	..		
				Leaves Net Profit	218915	0 3 $\frac{5}{8}$		

NEWCASTLE BRANCH DRAPERY TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
April, 1876.....	6990	318	0 10 ⁷ / ₈	117	0 4	8696
July ".....	9534	419	0 10 ¹ / ₂	120	0 3	8037
October " (14 weeks).....	12052	456	0 9 ¹ / ₂	444	0 8 ⁷ / ₈	10942
January, 1877.....	11320	535	0 11 ¹ / ₄	115	0 2 ⁷ / ₈	11525
April ".....	12394	537	0 10 ³ / ₄	386	0 7 ⁷ / ₈	11321
July ".....	13707	555	0 9 ³ / ₄	331	0 5 ⁷ / ₈	11142
October ".....	12719	545	0 10 ¹ / ₄	114	0 2 ¹ / ₈	12068
January, 1878.....	10739	574	1 0 ⁷ / ₈	168	0 3 ³ / ₄	11635
April ".....	10539	554	1 0 ² / ₈	213	0 4 ³ / ₄	11040
July ".....	10563	550	1 0 ¹ / ₄	2	..	9673
October ".....	11834	515	0 10 ³ / ₈	294	0 5 ⁷ / ₈	10331
January, 1879.....	11225	540	0 11	103	0 2 ¹ / ₈	10463
March " (10 weeks).....	8592	448	1 0 ¹ / ₄	224	0 6 ¹ / ₄	11404
June " (14 weeks).....	11025	583	1 0 ² / ₈	213	0 4 ³ / ₈	9531
Sept. ".....	11111	544	0 11 ¹ / ₈	227	0 4 ⁷ / ₈	10576
Dec. ".....	13946	578	0 9 ⁷ / ₈	207	0 3 ³ / ₈	11590
March, 1880.....	14399	622	0 10 ³ / ₈	548	0 9 ¹ / ₈	15114
June ".....	13770	598	0 10 ¹ / ₂	751	1 1	15773
Sept. ".....	12599	624	0 11 ¹ / ₄	566	0 10 ³ / ₄	16992
Dec. ".....	15211	650	0 10 ¹ / ₄	341	0 5 ¹ / ₄	16171
March, 1881.....	15827	666	0 10	601	0 9 ¹ / ₈	15779
June ".....	16949	654	0 9 ¹ / ₄	785	0 11	14972
Sept. ".....	16499	657	0 9 ¹ / ₂	445	0 6 ¹ / ₄	15812
Dec. ".....	19806	679	0 8 ¹ / ₈	508	0 6 ¹ / ₈	16075
March, 1882.....	18605	711	0 9	943	1 0 ¹ / ₈	16677
June ".....	20018	727	0 8 ⁵ / ₈	720	0 8 ⁵ / ₈	16358
Sept. ".....	19620	725	0 8 ⁵ / ₈	659	0 8	16067
Dec. ".....	26214	812	0 7 ⁵ / ₈	1334	1 0 ¹ / ₈	15754
March, 1883.....	22157	837	0 9	829	0 8 ⁷ / ₈	17957
June ".....	24710	830	0 8	1259	1 0 ¹ / ₈	15699
Sept. ".....	22703	842	0 8 ⁷ / ₈	925	0 9 ¹ / ₈	18258
Dec. ".....	29784	878	0 7	1486	0 11 ⁵ / ₈	16594
March, 1884.....	26436	907	0 8 ¹ / ₈	991	0 9	18875
June " (14 weeks).....	29550	1011	0 8 ¹ / ₈	1125	0 9 ¹ / ₈	18062
Sept. ".....	26800	1021	0 9 ¹ / ₈	862	0 7 ⁵ / ₈	18470
Dec. ".....	35559	1044	0 7	1525	0 10 ¹ / ₄	18906
March, 1885.....	33946	1062	0 7 ¹ / ₂	1651	0 11 ¹ / ₈	20675
June ".....	35822	1114	0 7 ³ / ₈	1671	0 11 ¹ / ₈	22002
Sept. ".....	33776	1104	0 7 ³ / ₄	1801	1 0 ¹ / ₈	22923
Dec. ".....	39157	1318	0 8	1783	0 10 ¹ / ₂	24084
March, 1886.....	34600	1274	0 8 ³ / ₈	1616	0 11 ¹ / ₄	23606
June ".....	39560	1304	0 7 ⁷ / ₈	2093	1 0 ² / ₈	22461
Sept. ".....	34858	1261	0 8 ² / ₈	1743	1 0	26253
Dec. ".....	43415	1503	0 8 ¹ / ₄	2110	0 11 ¹ / ₈	28645

NEWCASTLE BRANCH DRAPERY TRADE.—*Con.**From the time of commencing to keep a separate Account.*

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
March, 1887.....	33556	1454	0 10 ³ / ₄	1414	0 10 ¹ / ₂	29452
June „	36689	1514	0 9 ¹ / ₂	1369	0 8 ¹ / ₂	26594
Sept. „	35716	1378	0 9 ¹ / ₂	1807	1 0 ¹ / ₂	27540
Dec. „	38752	1522	0 9 ¹ / ₂	1255	0 7 ¹ / ₂	25753
March, 1888.....	37258	1464	0 9 ³ / ₄	1778	0 11 ³ / ₄	28326
June „	41885	1527	0 8 ³ / ₄	1437	0 8 ¹ / ₂	27390
Sept. „	36675	1416	0 9 ¹ / ₂	1620	0 10 ¹ / ₂	26756
Dec. „	46156	1566	0 8 ³ / ₄	1538	0 7 ³ / ₄	30177
March, 1889.....	40867	1647	0 9 ³ / ₄	1179	0 6 ¹ / ₂	33303
June „	46641	1642	0 8 ³ / ₄	1787	0 9 ¹ / ₂	28639
Sept. „ (14 weeks).....	45285	1526	0 8	2247	0 11 ¹ / ₂	29344
Dec. „	52650	1700	0 7 ³ / ₄	2387	0 10 ³ / ₄	32799
March, 1890 (12 weeks)	51449	1641	0 7 ³ / ₄	2090	0 9 ³ / ₄	35387
June „ (14 weeks).....	64451	1769	0 6 ¹ / ₂	3518	1 1	31444
Sept. „	52614	1666	0 7 ¹ / ₂	1928	0 8 ³ / ₄	34019
Dec. „	63846	1774	0 6 ³ / ₄	3052	0 11 ³ / ₄	33216
March, 1891.....	64669	1861	0 6 ⁷ / ₈	3102	0 11 ¹ / ₂	35463
June „	61882	1848	0 7 ¹ / ₂	3255	1 0 ¹ / ₂	34561
Sept. „	56368	1833	0 7 ¹ / ₂	2111	0 8 ¹ / ₂	38584
Dec. „	68556	1958	0 6 ³ / ₄	2418	0 8 ³ / ₄	35964
March, 1892.....	56448	1956	0 8 ¹ / ₂	1949	0 8 ¹ / ₂	42429
June „	50808	1841	0 8 ³ / ₄	2019	0 9 ¹ / ₂	31215
	1983852	70189	0 8 ³ / ₄	80209	0 9 ³ / ₄	..

NEWCASTLE BRANCH BOOT AND SHOE TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
April, 1876.....	5058	149	0 7 $\frac{1}{2}$	..	..	110	0 5 $\frac{3}{16}$	1154
July ".....	6969	159	0 5 $\frac{1}{2}$	284	0 9 $\frac{3}{8}$	..	..	1326
October " (14 wks)	8006	179	0 5 $\frac{3}{8}$	101	0 3	..	..	1180
January, 1877.....	5346	162	0 7 $\frac{1}{4}$	131	0 5 $\frac{7}{8}$	..	..	1505
April ".....	6211	170	0 3 $\frac{1}{2}$	130	0 5	..	..	1584
July ".....	6871	175	0 6 $\frac{1}{8}$	171	0 5 $\frac{7}{8}$	..	..	1526
October ".....	8254	207	0 6	266	0 7 $\frac{1}{4}$	..	..	1885
January, 1878.....	7089	208	0 7 $\frac{1}{2}$	123	0 4 $\frac{1}{2}$	..	..	2242
April ".....	6772	210	0 7 $\frac{1}{4}$	123	0 4 $\frac{1}{2}$	..	..	2577
July ".....	7252	226	0 7 $\frac{3}{8}$	57	0 1 $\frac{1}{2}$	..	..	3105
October ".....	7441	221	0 7	116	0 3 $\frac{3}{4}$	..	..	2080
January, 1879.....	6910	223	0 7 $\frac{3}{4}$	14	0 0 $\frac{1}{2}$	..	..	3179
March " (10 wks)	5138	193	0 9	25	0 1 $\frac{1}{2}$	..	..	3708
June " (14 wks)	6919	245	0 8 $\frac{1}{4}$	83	0 2 $\frac{1}{4}$	..	..	2587
September ".....	7733	233	0 7 $\frac{1}{4}$	103	0 3 $\frac{1}{2}$	..	..	2443
December ".....	7918	264	0 8	146	0 4 $\frac{1}{2}$	..	..	4681
March, 1880.....	9101	345	0 9	241	0 6 $\frac{1}{4}$	..	..	5200
June ".....	8053	325	0 9 $\frac{5}{8}$	189	0 5 $\frac{5}{8}$	..	..	5737
September ".....	8599	271	0 7 $\frac{1}{2}$	174	0 4 $\frac{3}{4}$	..	..	4815
December ".....	9215	335	0 8 $\frac{1}{4}$	45	0 1 $\frac{1}{8}$	..	..	5971
March, 1881.....	9592	329	0 8 $\frac{1}{4}$	193	0 4 $\frac{3}{4}$	..	..	4632
June ".....	10465	322	0 7 $\frac{3}{8}$	38	0 0 $\frac{5}{8}$	..	..	5262
Sept. ".....	10958	324	0 7	427	0 9 $\frac{3}{4}$	..	..	4372
Dec. ".....	11976	332	0 6 $\frac{5}{8}$	280	0 5 $\frac{1}{2}$	..	..	4645
March, 1882.....	11988	351	0 7	240	0 4 $\frac{3}{4}$	..	..	5110
June ".....	13064	351	0 6 $\frac{5}{8}$	416	0 7 $\frac{1}{2}$	..	..	5027
Sept. ".....	13672	376	0 6 $\frac{3}{4}$	340	0 5 $\frac{1}{4}$	..	..	5743
Dec. ".....	15763	449	0 6 $\frac{1}{4}$	340	0 5 $\frac{1}{8}$	..	..	6561
March, 1883.....	14318	480	0 8	298	0 4 $\frac{7}{8}$	..	..	5988
June ".....	16635	477	0 6 $\frac{7}{8}$	384	0 5 $\frac{1}{2}$	..	..	6013
Sept. ".....	16146	491	0 7 $\frac{1}{4}$	544	0 8	..	..	5377
Dec. ".....	18402	507	0 6 $\frac{1}{2}$	664	0 8 $\frac{3}{8}$	..	..	5817
March, 1884.....	16982	565	0 7 $\frac{7}{8}$	335	0 4 $\frac{5}{8}$	..	..	6508
June " (14 wks)	19686	589	0 7 $\frac{3}{8}$	737	0 8 $\frac{1}{4}$	..	..	7740
Sept. ".....	18020	660	0 8 $\frac{3}{4}$	352	0 4 $\frac{3}{8}$	..	..	7723
Dec. ".....	20366	594	0 6 $\frac{5}{8}$	493	0 5 $\frac{1}{4}$	..	..	8266
March, 1885.....	20514	621	0 7 $\frac{1}{4}$	660	0 7 $\frac{3}{8}$	..	..	7877
June ".....	22600	636	0 6 $\frac{5}{8}$	612	0 6 $\frac{1}{2}$	..	..	8057
Sept. ".....	21646	668	0 7 $\frac{1}{4}$	650	0 7 $\frac{1}{4}$	..	..	8276
Dec. ".....	24357	858	0 8 $\frac{3}{8}$	273	0 2 $\frac{3}{8}$	..	..	11319

NOTE.—To December, 1883, the figures include Furnishing Department.

NEWCASTLE BRANCH BOOT AND SHOE TRADE.—*Con.**From the time of commencing to keep a separate Account.*

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	
March, 1886	21856	846	0 9 $\frac{1}{4}$	408	0 4 $\frac{3}{8}$	..	..	10687
June „	26262	906	0 8 $\frac{1}{4}$	439	0 4	..	..	11686
Sept. „	23452	897	0 9 $\frac{1}{8}$	495	0 5	..	..	13662
Dec. „	25578	997	0 9 $\frac{1}{4}$	277	0 2 $\frac{1}{2}$	..	..	13442
March, 1887	21650	1020	0 11 $\frac{1}{4}$	234	0 2 $\frac{1}{2}$	..	..	12164
June „	22594	999	0 10 $\frac{1}{2}$	195	0 2	..	..	13721
Sept. „	23988	909	0 9	454	0 4 $\frac{1}{2}$	..	..	12909
Dec. „	22797	1001	0 10 $\frac{1}{2}$	290	0 3	..	..	13974
March, 1888	24279	940	0 9 $\frac{1}{4}$	403	0 3 $\frac{7}{8}$	..	..	12619
June „	26027	1009	0 9 $\frac{1}{4}$	401	0 3 $\frac{3}{4}$	..	..	13398
Sept. „	24055	939	0 9 $\frac{1}{8}$	615	0 6 $\frac{1}{8}$	..	..	12181
* Dec. „	26911	1090	0 9 $\frac{1}{8}$	128	0 1 $\frac{1}{8}$	..	..	14483
March, 1889	18785	891	0 11 $\frac{1}{8}$	259	0 3 $\frac{1}{4}$	..	..	10155
June „	24659	920	0 8 $\frac{1}{8}$	286	0 2 $\frac{3}{4}$	..	..	15164
Sept. „ (14 weeks)	24654	874	0 8 $\frac{1}{8}$	406	0 3 $\frac{7}{8}$	..	..	12943
Dec. „	22430	885	0 9 $\frac{1}{8}$	285	0 3	..	..	12463
March, 1890 (12 weeks)	23763	861	0 8 $\frac{5}{8}$	299	0 3	..	..	13117
June „ (14 weeks)	31492	972	0 7 $\frac{1}{4}$	728	0 5 $\frac{1}{2}$	..	..	14720
Sept. „	28227	975	0 8 $\frac{1}{4}$	599	0 5	..	..	16058
Dec. „	29667	945	0 7 $\frac{1}{2}$	673	0 5 $\frac{3}{8}$	..	..	11670
March, 1891	32032	957	0 7 $\frac{1}{8}$	591	0 4 $\frac{3}{8}$	..	..	14834
June „	33249	983	0 7	887	0 6 $\frac{3}{8}$	..	..	15129
Sept. „	31857	981	0 7 $\frac{1}{4}$	784	0 5 $\frac{1}{8}$	..	..	14706
Dec. „	27569	950	0 8 $\frac{1}{4}$	865	0 7 $\frac{1}{2}$	..	..	12628
March, 1892	28781	987	0 8 $\frac{1}{8}$	..	..	6	..	14524
June „	29330	990	0 8	651	0 5 $\frac{1}{4}$	..	..	15712
	1147949	39204	0 8 $\frac{1}{8}$	22450	..	116	..	..
				Less Loss.....	116	..		
				Leaves Net Profit.....	22334	0 4 $\frac{5}{8}$		

* NOTE.—To December, 1888, the figures include Furnishing Department.

NEWCASTLE BRANCH FURNISHING TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
March, 1889	*6345	600	1 10 ⁵ / ₈	..	..	240	1 0 ³ / ₄	4742
June "	12845	669	1 0 ¹³ / ₁₆	..	..	109	0 2	7731
Sept. " (14 weeks)	12578	676	1 0 ⁷ / ₈	165	0 3 ¹ / ₄	..	..	6757
Dec. "	17310	791	0 10 ⁵ / ₈	172	0 2 ³ / ₈	..	..	6386
March, 1890 (12 weeks)	15620	741	0 11 ³ / ₁₆	349	0 5 ¹ / ₄	..	..	7784
June " (14 weeks)	26038	928	0 8 ¹ / ₁₆	848	0 7 ³ / ₄	..	..	9046
Sept. "	21604	897	0 9 ⁷ / ₈	366	0 4	..	..	9074
Dec. "	26147	985	0 9	936	0 8 ¹ / ₂	..	..	10474
March, 1891	22761	967	0 10 ¹ / ₁₆	260	0 2 ⁵ / ₁₆	..	..	11415
June "	28616	1077	0 9	1020	0 8 ¹ / ₁₆	..	..	12518
Sept. "	21526	1038	0 11 ¹ / ₁₆	278	0 3	..	..	12367
Dec. "	26338	1138	0 10 ¹ / ₄	620	0 5 ⁵ / ₁₆	..	..	12002
March, 1892	18068	1020	1 11 ¹ / ₁₆	..	..	51	0 0 ⁵ / ₁₆	12184
June "	16604	996	1 2 ³ / ₁₆	150	0 2 ¹ / ₁₆	..	..	11854
	272400	12523	0 11	5164	..	500	..	..
	Less Loss.			500	..			
	Leaves Net Profit			4664	0 4			

* Carpets transferred to this Department in following quarter.

LONDON BRANCH GROCERY TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	SALES.	EXPENSES.		PROFIT.		Stocks.
		Am't.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
July, 1874	17472	440	0 6	331	0 4	6623
Oct. „	26734	587	0 5½	68	0 0½	11089
January, 1875	28179	515	0 4½	168	0 1½	7315
April „	25966	585	0 5½	157	0 0½	4329
July „	30695	597	0 4½	101	0 0½	4877
October „	37126	597	0 3½	553	0 3½	5194
January, 1876	36965	586	0 3½	773	0 5	7219
April „	37273	734	0 4½	609	0 4	4190
July „	43039	704	0 3½	895	0 5	5616
October „ (14 weeks).....	55687	743	0 3½	1422	0 6½	1327
January, 1877	48880	845	0 4½	1256	0 6½	12668
April „	46783	822	0 4½	641	0 3½	8059
July „	50612	826	0 3½	218	0 1	6141
October „	62001	811	0 3½	925	0 3	6597
January, 1878	51019	824	0 3½	536	0 2	10511
April „	48716	815	0 4	605	0 3	9063
July „	49307	838	0 4	518	0 2	5933
October „	62502	831	0 3½	551	0 2	8239
January, 1879	55789	897	0 3½	714	0 3	8489
March „ (10 weeks).....	39584	693	0 4½	482	0 2½	7917
June „ (14 weeks).....	59150	919	0 3½	837	0 3½	7833
September „	64211	952	0 3	1374	0 5½	9417
December „	69715	1006	0 3½	2546	0 8½	13594
March, 1880	60878	980	0 3½	792	0 3½	11167
June „	66697	948	0 3½	1086	0 3½	9112
September „	76145	951	0 2½	1088	0 3½	12386
December „	71245	1187	0 4	593	0 2	20789
March, 1881.....	62706	1528	0 5½	87	0 0½	17204
June „	67500	1254	0 4½	610	0 2½	13227
September „	82056	1262	0 3½	864	0 2½	12045
December „	77486	1266	0 3½	583	0 1½	7394
March, 1882.....	64724	1234	0 4½	695	0 2½	6652
June „	66034	1230	0 4½	900	0 3½	7615
September „	79407	1297	0 3½	1006	0 3	11636
December „	86602	1240	0 3½	1175	0 3½	10636
March, 1883.....	76284	1279	0 4	847	0 2½	7758
June „	76218	1274	0 4	748	0 2½	8254
September „	92723	1288	0 3½	1482	0 5½	1353
December „	92528	1600	0 4½	1553	0 4	13282
March, 1884.....	79833	1440	0 4½	1357	0 4	12758
June „ (14 weeks).....	88403	1515	0 4	969	0 2½	12422
September „	100541	1433	0 3½	1257	0 3	11849
December „	107186	1845	0 4½	1479	0 3½	18869

LONDON BRANCH GROCERY TRADE.—*Con.**From the time of commencing to keep a separate Account.*

QUARTERLY ACCOUNTS.

Date.	SALES.	EXPENSES.		PROFIT.		Stocks.
		Am't	Rate.	Amount.	Rate.	
	£	£	s. d.	£	£	£
March, 1885.....	94496	1832	0 4 ⁵ / ₈	2482	0 6 ¹ / ₄	18351
June „	107506	1797	0 4	2121	0 4 ⁵ / ₈	16601
Sept. „	117471	1822	0 3 ⁵ / ₈	1845	0 3 ³ / ₄	20042
December „	126403	2034	0 3 ³ / ₄	2653	0 5	24256
March, 1886.....	114451	2094	0 4 ³ / ₈	3195	0 6 ⁵ / ₈	19629
June „	118740	2019	0 4	1934	0 3 ⁷ / ₈	15310
September „	139957	2032	0 3 ³ / ₈	1694	0 2 ⁷ / ₈	20453
December „	154756	2318	0 3 ¹ / ₂	2896	0 4 ⁹ / ₈	24739
March, 1887.....	138667	2387	0 4 ¹ / ₈	1971	0 3 ³ / ₈	27940
June „	152416	2686	0 4 ⁵ / ₈	2130	0 3 ¹ / ₄	27026
September „	174234	2543	0 3 ¹ / ₂	2706	0 3 ⁹ / ₈	32589
December „	187565	3720	0 4 ¹ / ₄	2032	0 2 ¹ / ₂	47319
March, 1888.....	162077	3292	0 4 ⁷ / ₈	2576	0 3 ³ / ₄	37010
June „	171465	3323	0 4 ⁵ / ₈	1390	0 1 ¹ / ₂	32296
September „	191133	3626	0 4 ¹ / ₂	1841	0 2 ¹ / ₄	40973
December „	214604	3787	0 4 ⁵ / ₈	3570	0 3 ¹ / ₈	41562
March, 1889.....	178797	3557	0 4 ³ / ₄	2291	0 3	37114
June „	199566	3727	0 4 ⁵ / ₈	4227	0 5	39856
September „ (14 weeks).....	234344	3816	0 3 ⁵ / ₈	1775	0 1 ³ / ₄	43068
December „	235671	4076	0 4 ¹ / ₈	2374	0 2 ¹ / ₈	44017
March, 1890 (12 weeks)	190477	3825	0 4 ³ / ₄	3244	0 4	44947
June „ (14 weeks)	218790	4242	0 4 ⁵ / ₈	2084	0 2 ¹ / ₄	37671
September „	222986	4132	0 4 ⁵ / ₈	2901	0 3	47143
December „	261217	4821	0 4 ⁵ / ₈	4439	0 4	57347
March, 1891.....	245815	4956	0 4 ³ / ₈	3153	0 3	49228
June „	256359	5078	0 4 ³ / ₄	3163	0 2 ⁷ / ₈	46274
September „	287105	5084	0 4 ¹ / ₈	1517	0 1 ¹ / ₄	56994
December „	333519	5792	0 4 ¹ / ₈	3605	0 2 ¹ / ₂	75578
March, 1892.....	281030	5827	0 4 ⁷ / ₈	4927	0 4 ¹ / ₈	64499
June „	285441	5827	0 4 ⁷ / ₈	1789	0 1 ¹ / ₂	49482
	8419659	149290	0 4 ¹ / ₄	113981	0 3 ¹ / ₈	....

LONDON BRANCH DRAPERY TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	SALES.			EXPENSES.		PROFIT.		Stocks.
	Drapery.	Boots and Shoes.	Total.	Amount	Rate.	Amount.	Rate.	
	£	£	£	£	s. d.	£	s. d.	£
September, 1880 .....	.....	3366	3366	72	0 5 $\frac{1}{2}$	78	0 5 $\frac{1}{2}$	1215
December "	1657	3134	4791	240	1 0	Loss 42	0 2	3805
March, 1881	2504	2909	5413	306	1 1 $\frac{1}{2}$	do. 92	0 4	4524
June "	2653	3173	5826	307	1 0	Profit 27	0 1	4730
September "	3110	3497	6607	311	0 11 $\frac{1}{2}$	18	0 0	5118
December "	4291	3869	8160	344	0 10 $\frac{1}{2}$	196	0 5	7054
March, 1882	4050	3027	7077	358	1 0	72	0 2	6776
June "	3582	3472	7054	393	1 1	28	0 0	6846
September "	4413	4382	8795	406	0 11	126	0 3	7059
December "	4891	4748	9639	479	0 11 $\frac{1}{2}$	86	0 2	9524
March, 1883	5080	3566	8646	500	1 1	87	0 2	8854
June "	4766	4560	9326	577	1 2	91	0 2	9486
September "	5266	5099	10365	644	1 2	22	0 0	8130
December "	6642	4758	11400	691	1 2	86	0 1	10011
March, 1884	7504	3939	11443	665	1 1	27	0 0	8992
June " (14 wks)	6306	4718	11024	688	1 3	158	0 3	8308
September "	6601	6259	12860	703	1 11	165	0 3	9689
December "	8592	4910	13502	751	1 11	182	0 3	9977
March, 1885	9173	4694	13867	802	1 1	171	0 2	10497
June "	8897	5729	14626	901	1 2	91	0 1	9936
September "	9875	6369	16244	834	1 0	89	0 1	10642
December "	12503	5532	18035	1017	1 1	333	0 4	11502
March, 1886	12994	5402	18396	1065	1 1	223	0 2	11102
June "	12257	5939	18196	1127	1 2	15	0 0	11034
September "	13005	7541	20546	1107	1 0	166	0 1	12366
December "	15493	7208	22701	1230	1 1	372	0 3	13713
March, 1887	14158	5838	19996	1228	1 2	Loss 65	0 0	16022
June "	15689	6503	22192	1318	1 2	Profit 37	0 1	15710
September "	13966	6850	20816	1294	1 2	Loss 39	0 0	17571
December "	19411	.....	19411	1690	1 8	do. 184	0 2	14967
March, 1888	16955	.....	16955	1652	1 11	do. 536	0 7	18637
June "	19660	.....	19660	1703	1 8	do. 30	0 0	17388
September "	16832	.....	16832	1728	2 0	do. 737	0 10	18036
December "	24441	.....	24441	1818	1 5	do. 210	0 2	19484
March, 1889	19404	.....	19404	1873	1 11	do. 1025	1 0	23621
June "	12964	.....	12964	1393	2 1	do. 213	0 3	18591
September " (14 wks)	14165	.....	14165	1401	1 11	do. 779	1 1	19998
December "	14922	.....	14922	1383	1 10	do. 942	1 3	18189
March, 1890 (12 wks)	13889	.....	13889	1296	1 10	do. 1790	2 6	16342
June " (14 wks)	16646	.....	16646	1365	1 7	do. 88	0 1	12962
September "	15915	.....	15915	1284	1 7	do. 340	0 5	15200
December "	20634	.....	20634	1372	1 3	Profit 316	0 3	12607
March, 1891	18244	.....	18244	1378	1 6	Loss 138	0 1	16268
June "	18717	.....	18717	1437	1 6	do. 322	0 4	15276
September "	17994	.....	17994	1434	1 7	Profit 103	0 1	20145
December "	23628	.....	23628	1503	1 3	do. 350	0 3	18030
March, 1892	19094	.....	19094	1680	1 9	Loss 360	0 4	22996
June "	22580	.....	22580	1633	1 5	Profit 9	.....	19052
	566013	140991	707004	49381	1 4 $\frac{3}{4}$	Loss 7932	.....	.....
						3784	.....
						Leaves Net Loss	4148 0 1 $\frac{3}{4}$	

NOTE.—To Sept., 1887, and March, 1889, Boot and Shoe and Furnishing figures included respectively.

LONDON BRANCH BOOT AND SHOE TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
December, 1887.....	7155	323	0 10 $\frac{3}{4}$	..	..	47	0 1 $\frac{1}{2}$	3891
March, 1888.....	5600	374	1 4	..	..	42	0 1 $\frac{3}{4}$	4464
June, „	7760	373	0 11 $\frac{1}{2}$	47	0 1 $\frac{3}{8}$	..	..	4225
September, „	7937	418	1 0 $\frac{3}{8}$	40	0 1 $\frac{1}{8}$	..	..	4762
December, „	8806	428	0 11 $\frac{3}{8}$	44	0 1 $\frac{1}{8}$	..	..	4884
March, 1889.....	7239	444	1 2 $\frac{5}{8}$	..	..	107	0 2 $\frac{1}{2}$	4784
June, „	8482	428	1 0	132	0 3 $\frac{5}{8}$	..	..	4486
September, „ (14 weeks)	8946	453	1 0 $\frac{1}{8}$	..	..	30	0 0 $\frac{3}{4}$	5451
December, „	7986	466	1 2	..	..	50	0 1 $\frac{1}{2}$	6305
March, 1890 (12 weeks)	7670	433	1 11 $\frac{1}{2}$	67	0 2	..	..	5637
June, „ (14 weeks)	9154	491	1 0 $\frac{13}{16}$	..	..	8	0 0 $\frac{1}{8}$	6225
September, „	9478	491	1 0 $\frac{1}{16}$	63	0 1 $\frac{1}{2}$	..	..	6370
December, „	9225	518	1 1 $\frac{1}{2}$	43	0 1 $\frac{1}{8}$	..	..	6051
March, 1891.....	8866	556	1 3	..	..	57	0 1 $\frac{1}{2}$	6509
June, „	10440	590	1 11 $\frac{1}{2}$	..	..	45	0 1	7281
September, „	10833	584	1 0 $\frac{7}{8}$	65	0 1 $\frac{3}{8}$	..	..	7231
December, „	11110	587	1 0 $\frac{5}{8}$	61	0 1 $\frac{1}{4}$	..	..	7337
March, 1892.....	9183	658	1 5 $\frac{1}{4}$	..	..	182	0 4 $\frac{3}{4}$	8043
June, „	12742	682	1 0 $\frac{1}{4}$	30	0 0 $\frac{1}{2}$	..	..	7193
	168612	9297	1 11 $\frac{1}{8}$	592	..	568	..	..
	Less Loss			568	..			
				24	..			
				Leaves Net Profit.....				

LONDON BRANCH FURNISHING TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
June, 1889.....	7014	504	1 5 ¹ / ₈	23	0 0 ³ / ₄	..	..	4512
September, „ (14 weeks)....	7145	619	1 8 ⁵ / ₈	..	..	190	0 6 ³ / ₈	4525
December, „	7925	682	1 8 ⁵ / ₈	..	..	166	0 5	4526
March, 1890 (12 weeks)....	7170	634	1 9 ¹ / ₈	..	..	131	0 4 ³ / ₈	5118
June, „ (14 weeks)....	8055	685	1 8 ⁵ / ₈	6	0 0 ¹ / ₈	..	..	4656
September, „	7444	650	1 8 ¹ / ₂	..	..	405	1 1	4223
December, „	9204	713	1 6 ¹ / ₂	..	..	89	0 2 ¹ / ₄	3957
March, 1891.....	10064	779	1 6 ¹ / ₂	..	..	78	0 1 ³ / ₄	4613
June, „	9700	779	1 7 ¹ / ₄	..	..	85	0 2	4526
September, „	9137	746	1 7 ¹ / ₂	..	..	170	0 4 ³ / ₈	4785
December, „	12082	752	1 2 ⁷ / ₈	15	0 0 ¹ / ₄	..	..	4693
March, 1892.....	9441	812	1 8 ⁵ / ₈	..	..	42	0 1	5296
June, „	10944	876	1 7 ¹ / ₈	65	0 1 ³ / ₈	..	..	5468
	115325	9231	1 7 ¹ / ₈	109	..	1356	..	
						109	..	
						1247	0 2 ¹ / ₂	

HECKMONDWIKE CURRYING SUPPLIES, &c., STATED SEPARATELY.

FIGURES INCLUDED IN HECKMONDWIKE ACCOUNTS.

From its Commencement.

QUARTERLY ACCOUNTS.

Quarter Ending.	Supplies.	EXPENSES.				PROFIT.		LOSS.		Stocks.
		Sundry.	Depre- ciation.	Interest.	Total.	Rate per £ on Supplies.	Amount	Rate per £ on Supplies.	Amount	
	£	£	£	£	£	s. d.	£	s. d.	£	£
December, 1887.....	538	391	27	17	435	16 2	55	2 0½	....	213
March, 1888	1086	492	27	20	539	9 11	231	4 3	....	153
June, "	522	496	45	30	571	21 10½	....	1 8½	44	397
Sept., "	921	473	46	32	551	11 11½	186	4 0½	....	401
Dec., "	833	604	51	37	692	16 7½	40	0 11½	....	687
March, 1889	1045	439	51	35	545	10 5½	1	....	....	284
June, "	759	454	51	36	541	14 3	.. 44	....	60	217
Sept., "	864	515	62	36	613	14 2½	.. 44	1 0½	....	181
Dec., "	595	509	63	36	608	20 5½	....	6 3	186	306
March, 1890	1021	549	60	40	649	12 8½	173	3 4½	....	365
June, "	896	555	70	45	670	14 11½	72	1 7½	....	443
Sept., "	1097	610	66	41	717	13 0½	....	....	53	248
Dec., "	1089	647	66	40	753	13 9½	198	3 7½	....	399
March, 1891	1125	697	66	41	804	14 9½	40	0 8½	....	392
June, "	822	615	66	42	723	17 7	....	2 2½	52	525
Sept., "	1144	598	66	42	706	12 4	226	3 11½	....	546
Dec., "	1313	614	66	42	722	10 11½	166	2 6½	....	415
March, 1892	936	586	66	42	694	14 9½	....	....	73	353
June, "	799	565	66	42	673	16 10½	....	....	101	289
	17405	10429	1081	696	12206	14 0½	1432	....	609	....
					Less Loss.....		609	....	
					Leaves Net Profit..		823	0 11½		

HECKMONDWIKE BOOT AND SHOE WORKS TRADE.

From its Commencement.

QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Produc- tion.	EXPENSES.				RATE ON PRODUCTION.			NET PROFIT.		NET LOSS.		Stocks.
			Sundry.	Depre- ciation.	Interest	Total.	Per cent.		Per £.	Amount	Rate.	Amount	Rate.	
							£	s. d.						
Sept., 1880.....	711	782	225	8	1	229	31 5 8	6 3	6 3	....	....	12	0 8 7	1856
Dec., "	2349	2706	892	13	29	874	32 5 11½	6 5½	6 5½	....	....	169	1 2 8	2473
March, 1881.....	2608	3052	942	14	33	989	32 8 1	6 5½	6 5½	....	....	196	1 3 3	2293
June, "	1913	2478	800	14	42	856	34 10 10	6 10½	6 10½	....	....	139	1 1 3	3637
Sept., "	2897	2467	761	14	48	823	33 7 2½	6 8	6 8	....	....	244	1 11 5	3136
Dec., "	3623	3420	1089	15	34	1138	33 5 5¼	6 7½	6 7½	....	....	29	0 2	2238
March, 1882.....	3548	3608	1125	16	46	1187	32 17 11½	6 6½	6 6½	....	0 5½	8	0 0½	2934
June, "	2986	2909	1102	16	42	1160	39 17 6¼	7 11½	7 11½	63	0	....	....	3186
Sept., "	2923	3687	1161	17	48	1226	33 5 0¼	6 7½	6 7½	....	....	94	0 6	3996
Dec., "	5145	5250	1653	17	47	1717	32 14 1	6 6½	6 6½	....	....	124	0 5½	4016
March, 1883.....	3899	4130	1307	17	54	1378	33 7 3½	6 8	6 8	45	0	....	....	5104
June, "	2901	2696	994	17	61	1072	39 15 3	7 11½	7 11½	50	0	....	....	5111
Sept., "	3948	3933	1325	17	60	1402	35 13 3¼	7 1½	7 1½	107	0	....	....	4585
Dec., "	5913	5618	1809	17	47	1873	33 6 9¼	6 8	6 8	92	0	....	....	3950

[illegible]

CRUMPSALL BISCUIT WORKS TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Pro- duction	EXPENSES.				RATE ON PRODUCTION.		NET PROFIT.		Sto
			Sundry.	Depre- ciation.	Interest	Total.	Per cent.	Per £.	Amount	Rate per £.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	
January, 1874..	2987	2878	604	60	87	751	26 1 10	5 2½	15	0 1¼	16
April „ ..	2814	2790	506	68	92	666	23 18 1	4 9	61	0 5¼	19
July „ ..	3450	3426	502	80	124	706	20 11 6	4 1¼	192	1 1¼	19
October „ ..	3560	3538	585	87	132	804	22 13 11	4 6¼	loss 16	0 1	18
January, 1875..	3365	3370	597	88	147	832	24 13 9	4 11	do. 9	0 0½	20
April „ ..	3575	3500	598	79	91	768	21 18 6	4 4	265	1 5¾	21
July „ ..	3529	3260	610	80	99	789	24 4 0	4 10	208	1 2½	16
October „ ..	3380	3301	676	81	90	847	25 13 2	5 1	94	0 6½	14
January, 1876..	3180	3331	631	84	91	806	24 3 4	4 10	145	0 11	17
April „ ..	3187	3093	956	90	101	1147	37 1 8	7 5¾	13	0 1	23
July „ ..	4659	4918	888	98	111	1097	22 6 1	4 5	221	0 11½	19
*October „ ..	4975	5039	789	103	113	1005	19 18 9	3 11	332	1 4	25
January, 1877..	3045	3015	649	107	116	872	28 18 5	5 9	64	0 5	28
April „ ..	3879	4177	704	109	129	942	22 11 0	4 6	44	0 2¾	30
July „ ..	4442	4503	629	110	132	871	19 6 10	3 10	17	0 1	24
October „ ..	5521	5158	740	111	118	969	18 16 0	3 9	115	0 5½	22
January, 1878..	4176	4288	599	114	121	834	19 9 0	3 10¾	338	1 7¾	24
April „ ..	4115	3732	665	114	127	906	24 6 0	4 10¼	313	1 6¼	30
July „ ..	4217	4144	620	114	120	854	20 12 2	4 1	191	1 0	22
October „ ..	5169	5229	821	114	118	1053	20 2 9	4 0¼	614	2 5¼	22
January, 1879..	4112	4184	692	139	116	947	22 12 8	4 6¼	400	1 10¾	22
†March „ ..	2953	2701	550	106	91	747	27 13 3	5 6¾	181	1 4	22
*June „ ..	4515	4512	812	148	124	1084	24 0 2	4 9¾	168	0 8½	22
September „ ..	4716	4677	781	139	114	1034	22 2 2	4 5	303	1 3	22
December „ ..	4439	4564	709	139	118	966	21 2 10	4 2¾	352	1 6	22
March, 1880..	4277	4268	799	139	107	1045	24 9 8	4 10¾	loss 12	6 0½	22
June „ ..	4550	4546	676	143	109	928	20 8 3	4 1	288	1 3¼	22
September „ ..	5227	5107	750	145	109	1004	19 13 2	3 11½	389	1 6¼	1
December „ ..	5099	5148	760	145	104	1009	19 12 0	3 11	318	1 2¾	1
March, 1881..	4024	4156	703	144	106	953	22 18 7	4 7	165	0 9½	22
June „ ..	4863	4727	767	144	111	1022	21 12 4	4 3¾	45	0 2¼	22
September „ ..	5823	6046	835	144	109	1088	18 0 0	3 7¼	471	1 6¾	22
December „ ..	5412	5345	751	144	103	998	18 13 2	3 8¼	206	0 9¼	22
March, 1882..	4733	4725	771	144	104	1019	21 11 4	4 3¾	265	1 1¾	19
June „ ..	5064	4975	772	144	101	1017	20 8 0	4 1	164	0 7¾	22
September „ ..	5860	5921	777	144	99	1020	17 4 6	3 5¼	632	2 1¼	22
December „ ..	5975	5957	775	146	97	1018	17 1 10	3 5	437	1 5½	13
March, 1883..	4838	5245	756	147	103	1006	19 3 7	3 10	496	1 10½	22
June „ ..	5407	5100	828	147	105	1080	21 3 6	4 2¾	169	0 7¾	22
September „ ..	5915	5580	860	147	101	1108	19 17 1	3 11½	630	2 3	22
December „ ..	5737	5787	784	148	99	1031	17 16 3	3 6¾	786	2 8½	16
March, 1884..	4740	4920	884	148	105	1137	23 2 2	4 7¾	190	0 9¼	1
*June „ ..	5409	5098	997	158	108	1263	24 15 5	4 11½	345	1 4¼	1
September „ ..	5828	5965	1094	177	117	1388	23 5 4	4 7¾	609	2 0¾	1
December „ ..	5572	5582	866	182	100	1148	20 11 4	4 1¼	886	3 2	1

* Fourteen Weeks. † Ten weeks.

CRUMPSALL BISCUIT WORKS TRADE.—*Con.**From the time of commencing to keep a separate Account.*

QUARTERLY ACCOUNTS.

Date.	Net Sup- lies.	Pro- duction	EXPENSES.				RATE ON PRODUCTION.		NET PROFIT.		Stocks
			Sundry.	Depre- ciation.	Interest	Total.	Per cent.	Per £.	Amount	Rate per £.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£
h, 1885 ..	4438	4600	1114	190	110	1414	30 14 9	6 13 ³ / ₄	94	0 4 ⁷ / ₈	2707
ember " ..	5514	5213	1168	192	107	1467	28 2 9	5 7 ¹ / ₂	283	1 1	3154
ember " ..	5762	6250	1339	202	117	1658	26 10 6	5 3 ⁵ / ₈	304	0 11 ⁵ / ₈	3604
ember " ..	5765	5767	1173	202	120	1495	25 18 5 ¹ / ₂	5 2 ¹ / ₈	810	2 9 ³ / ₈	3534
h, 1886 ..	5133	5092	1242	202	123	1567	30 15 5	6 13 ³ / ₄	48	0 2 ¹ / ₄	3747
ember " ..	5494	5698	1322	207	119	1648	28 18 5	5 9 ³ / ₈	115	0 5	3960
ember " ..	5920	6060	1695	207	124	2026	33 8 7 ³ / ₄	6 8 ¹ / ₂	loss 258	0 10 ³ / ₄	4479
ember " ..	6987	6035	1556	281	163	2000	33 2 9 ¹ / ₂	6 7 ¹ / ₂	34	0 1 ⁵ / ₈	4207
h, 1887 ..	6311	6637	1409	285	161	1855	27 18 11 ³ / ₄	5 7	215	0 8 ¹ / ₂	4285
ember " ..	6602	6035	1512	313	196	2021	33 9 9	6 8 ¹ / ₄	loss 191	0 6 ⁵ / ₈	4396
ember " ..	7466	8879	1664	340	188	2192	24 13 8 ⁷ / ₈	4 11 ¹ / ₈	123	0 3 ⁷ / ₈	5357
ember " ..	7935	7549	1786	340	200	2326	30 16 2 ⁷ / ₈	6 1 ⁸ / ₈	loss 150	0 4 ² / ₂	5518
h, 1888 ..	7053	7404	1540	340	215	2095	28 5 10 ⁷ / ₈	5 7 ⁷ / ₈	do. 223	0 7 ¹ / ₃	5958
ember " ..	7427	7265	1709	340	212	2261	31 2 5 ¹ / ₈	6 2 ⁵ / ₈	180	0 5 ³ / ₄	6468
ember " ..	8921	9188	1740	342	217	2299	25 0 5 ¹ / ₂	5 0	loss 195	0 5 ¹ / ₄	6903
ember " ..	8678	8298	1627	342	218	2187	26 7 1 ³ / ₈	5 3 ¹ / ₄	16	0 0 ⁵ / ₈	7633
h, 1889 ..	7689	8779	1602	342	229	2173	24 15 0 ¹ / ₄	4 11 ³ / ₈	94	0 2 ⁷ / ₈	8892
ember " ..	10285	8530	1713	342	226	2281	26 14 9 ¹ / ₄	5 4 ¹ / ₈	469	0 10 ⁷ / ₈	7463
pt. " ..	12420	14900	2178	343	247	2768	18 11 6 ¹ / ₃	3 8 ¹ / ₃	142	0 2 ³ / ₄	10655
ember " ..	11687	10627	1990	348	227	2565	24 2 8 ³ / ₄	4 9 ⁸ / ₈	569	0 11 ³ / ₈	9411
h, 1890 ..	10870	10988	2147	322	225	2694	24 10 4 ¹ / ₄	4 10 ³ / ₄	48	1	9436
ember " ..	12179	10603	2433	376	234	3043	28 13 11 ³ / ₄	5 8 ⁷ / ₈	721	1 2 ¹ / ₄	9538
ember " ..	14647	19258	2481	348	244	3073	15 19 1	3 2 ¹ / ₄	loss 336	0 5 ¹ / ₂	13097
ember " ..	14220	13348	2370	348	254	2972	22 5 4 ³ / ₈	4 5 ³ / ₈	loss 394	0 6 ⁵ / ₈	
h, 1891 ..	14526	14346	2476	348	261	3085	21 10 1	4 3 ¹ / ₂	769	1 0 ⁵ / ₈	12575
ember " ..	15122	12262	2720	422	296	3438	28 0 9	5 7 ¹ / ₄	672	0 10 ⁵ / ₈	12621
ember " ..	21160	24594	3421	503	330	4304	17 10 0	3 6	220	0 2 ¹ / ₄	19472
ember " ..	17753	19740	3257	505	375	4137	20 19 1 ³ / ₄	4 7 ¹ / ₄	1620	1 9 ⁷ / ₈	22353
h, 1892 ..	15174	14749	3231	506	420	4157	28 3 8 ³ / ₈	5 7 ⁵ / ₈	1512	1 11 ⁷ / ₈	19633
ember " ..	14880	11629	3065	510	394	3969	34 2 7 ¹ / ₈	6 9 ⁷ / ₈	Loss 178	0 2 ⁵ / ₈	19042
	500271	501849	91798	15430	11521	118749	23 13 2 ⁷ / ₈	4 8 ³ / ₄	21195	..	..
									1962	..	..
									19233	0 9 ¹ / ₈	..

* Fourteen Weeks.

† Twelve Weeks

LEICESTER BOOT AND SHOE WORKS TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Produc- tion.	EXPENSES.			
			Sundry.	Depre- ciation.	Interest.	Total.
	£	£	£	£	£	£
January, 1874	3422	5190	1281	6	29	1316
April "	4506	10794	1512	7	42	1561
July "	7737	10120	2673	7	77	2757
October "	8065	8323	2671	10	101	2782
January, 1875	9148	9447	3191	12	122	3325
April "	11022	10381	3461	29	107	3597
July "	13987	14610	4320	34	127	4481
October "	15413	15349	4863	30	156	5049
January, 1876	13265	13362	4292	31	153	4476
April "	13602	11642	4190	31	151	4372
July "	15214	17921	5104	32	166	5302
*October "	19313	16419	6209	87	224	6520
January, 1877	14076	14122	5128	96	239	5463
April "	15870	14869	4968	102	268	5338
July "	19155	19653	6673	104	275	7052
October "	18551	18119	6042	105	247	6394
January, 1878	17564	14962	5674	105	233	6012
April "	15671	17902	5591	105	267	5963
July "	22014	18840	7423	106	259	7788
October "	18226	17154	5718	106	234	6058
January, 1879	17970	19043	7170	107	238	7515
†March "	12947	15196	5025	82	187	5294
*June "	21462	19585	6896	117	254	7267
September "	19379	19389	7325	109	216	7650
December "	23688	23576	8770	109	288	9167
March, 1880	20675	24392	8445	110	348	8903
June "	23571	20933	7004	110	310	7424
September "	18670	17610	6602	112	304	7018
December "	21739	21494	7815	112	279	8206
March, 1881	16827	20698	6775	112	298	7185
June "	26921	23471	8772	112	271	9155
September "	20723	21174	7834	112	261	8207
December "	23136	23807	9301	112	257	9670
March, 1882	19610	22487	8163	123	311	8597
June "	27552	25002	8808	122	276	9206
September "	26787	26702	9702	124	268	10094
December "	25149	25326	9715	126	258	10099
March, 1883	21493	22090	8278	124	312	8714
June "	25255	22929	8499	124	273	8896
September "	21777	20418	7880	124	228	8232
December "	23461	24777	9211	139	227	9577
March, 1884	21478	25093	8729	141	254	9124
*June "	32190	31418	11336	179	323	11838
September "	29282	25995	9946	252	371	10569
December "	24216	23827	9226	266	319	9811

* Fourteen weeks. † Ten weeks.

LEICESTER BOOT AND SHOE WORKS TRADE.—Continued.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	RATE ON PRODUCTION.		NET PROFIT.		NET LOSS.		Stocks.
	Per cent.	Per £.	Amount	Rate.	Amount	Rate.	
	£ s. d.	s. d.	£	s. d.	£	s. d.	£
January, 1874.....	25 6 8	5 0 $\frac{3}{4}$	..	..	8	0 0 $\frac{1}{2}$	2579
April ".....	20 14 9	4 6 $\frac{1}{2}$	108	0 5 $\frac{3}{4}$	..	..	2504
July ".....	27 4 8	5 5 $\frac{1}{4}$	111	0 3 $\frac{3}{4}$	..	..	4366
October ".....	33 8 6	6 8 $\frac{1}{4}$	373	0 11 $\frac{1}{8}$	..	..	5716
January, 1875.....	35 3 11	7 0 $\frac{1}{2}$	..	..	8	0 0 $\frac{1}{4}$	6466
April ".....	34 13 6	6 11 $\frac{1}{4}$	..	..	175	0 3 $\frac{3}{4}$	6956
July ".....	30 13 5	6 1 $\frac{1}{2}$	1153	1 5 $\frac{7}{8}$	..	..	8809
October ".....	32 17 10	6 7	..	..	174	0 2 $\frac{5}{8}$	1077 ²
January, 1876.....	33 10 0	6 8 $\frac{1}{4}$	108	0 2	..	..	9186
April ".....	37 10 11	7 6	226	0 4	..	..	10025
July ".....	29 11 8	5 11	165	0 2 $\frac{3}{4}$	..	..	11149
*October ".....	39 14 1	7 11 $\frac{1}{4}$	629	0 7 $\frac{13}{16}$	..	..	12677
January, 1877.....	38 13 8	7 8 $\frac{3}{4}$	..	..	134	0 2 $\frac{1}{4}$	14131
April ".....	35 18 0	7 2 $\frac{1}{4}$	..	..	23	0 0 $\frac{1}{2}$	13013
July ".....	35 17 8	7 2 $\frac{1}{4}$	496	0 6	..	..	15634
October ".....	35 5 8	7 0 $\frac{1}{2}$	17	0 0 $\frac{3}{16}$	..	..	16692
January, 1878.....	40 3 8	8 0 $\frac{1}{2}$	..	..	279	0 3 $\frac{13}{16}$	12322
April ".....	33 6 3	6 8	79	0 1 $\frac{1}{4}$	..	..	15104
July ".....	41 6 9	8 3 $\frac{1}{2}$	665	0 7 $\frac{1}{2}$	..	..	14416
October ".....	35 5 5	7 0 $\frac{1}{2}$	807	0 10 $\frac{1}{2}$	..	..	14495
January, 1879.....	39 9 3	7 10 $\frac{3}{4}$	24	0 3 $\frac{3}{4}$	..	..	14515
†March ".....	34 16 9	6 11 $\frac{1}{2}$	351	0 5 $\frac{1}{2}$	..	..	16649
*June ".....	37 2 1	7 5	..	..	84	0 1	11456
September ".....	39 9 4	7 10 $\frac{3}{4}$	954	0 11 $\frac{3}{4}$	..	..	10996
December ".....	38 17 6	7 9 $\frac{1}{4}$	424	0 4 $\frac{1}{4}$	..	..	24733
March, 1880.....	36 10 0	7 3 $\frac{1}{2}$	..	..	156	0 1 $\frac{1}{2}$	28388
June ".....	35 9 1	7 1 $\frac{1}{8}$	760	0 8 $\frac{1}{2}$	..	..	20330
September ".....	39 17 0	7 11 $\frac{3}{8}$	248	0 3 $\frac{3}{8}$	..	..	14662
December ".....	38 3 6	7 7 $\frac{1}{2}$	..	..	1161	1 0 $\frac{7}{8}$	15772
March, 1881.....	34 14 3	6 11 $\frac{1}{4}$	934	0 10 $\frac{3}{4}$	..	..	19945
June ".....	39 0 1	7 9 $\frac{1}{2}$	63	0 0 $\frac{5}{8}$	..	..	15048
September ".....	38 15 2	7 9	410	0 4 $\frac{5}{8}$	..	..	16310
December ".....	40 12 2	8 1 $\frac{1}{2}$	..	..	955	0 9 $\frac{5}{8}$	15594
March, 1882.....	38 4 7	7 8	339	0 3 $\frac{5}{8}$	..	..	20370
June ".....	36 16 5	7 4 $\frac{1}{4}$	593	0 5 $\frac{1}{2}$	..	..	15241
September ".....	37 16 0	7 6 $\frac{3}{4}$	417	0 3 $\frac{3}{4}$	..	..	13437
December ".....	39 17 6	7 11 $\frac{3}{8}$	300	0 2 $\frac{3}{4}$	..	..	14192
March, 1883.....	39 8 11	7 10 $\frac{5}{8}$	..	..	341	0 3	18248
June ".....	38 15 11	7 9	£99	0 4 $\frac{1}{8}$	..	..	13038
September ".....	40 6 4 $\frac{1}{4}$	8 0 $\frac{3}{4}$	58	0 0 $\frac{5}{8}$	..	..	10389
December ".....	38 13 0	7 8 $\frac{1}{4}$	74	0 0 $\frac{3}{8}$	..	..	10384
March, 1884.....	36 7 2	7 3 $\frac{1}{4}$	886	0 8 $\frac{3}{8}$	..	..	15796
*June ".....	37 13 6	7 6 $\frac{3}{8}$	1730	1 1 $\frac{1}{4}$	..	..	19049
September ".....	40 13 2	8 1 $\frac{1}{2}$	743	0 6 $\frac{3}{4}$	..	..	16274
December ".....	41 3 5	8 2 $\frac{1}{4}$	..	..	98	0 0 $\frac{7}{8}$	17800

* Fourteen weeks.

† Ten weeks.

LEICESTER BOOT AND SHOE WORKS TRADE.—*Continued.**From the time of commencing to keep a separate Account.*

QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Produc- tion.	EXPENSES.			
			Sundry.	Depre- ciation.	Interest.	Total.
	£	£	£	£	£	£
March, 1885	26769	27876	9905	268	349	10522
June "	30729	30386	11109	269	332	11710
September "	26076	24106	9330	270	325	9925
December "	25890	25438	9502	270	309	10081
March, 1886	26923	32001	11057	276	340	11673
June "	41536	38021	13750	276	313	14339
September "	27976	26674	9718	276	294	10292
December "	26028	26007	10206	276	293	10775
March, 1887	30476	34990	11855	280	340	12475
June "	39272	34884	12881	280	298	13459
September "	27824	26078	10325	280	289	10894
December "	28845	28372	10834	280	303	11417
March, 1888	33925	36819	13032	280	366	13678
June "	45382	40206	15331	280	347	15958
September "	33018	30077	12194	280	335	12809
December "	31163	32853	12649	284	333	13266
March, 1889	37726	44479	15618	288	393	16299
June "	54156	47577	17674	292	387	18353
September " (14 weeks)	44423	41322	16966	325	416	17707
December "	35962	42334	15740	331	437	16508
March, 1890 (12 weeks)	50644	51448	18281	307	470	19058
June " (14 weeks)	65366	61114	22790	360	493	23643
September "	46271	50874	18847	233	510	19590
December "	44213	57327	21543	240	661	22444
March, 1891	72088	63995	24294	248	687	25229
June "	64294	59885	23034	249	645	23928
September "	57530	55491	21329	249	663	22241
December "	41498	51487	20693	249	684	21626
March, 1892	63457	61229	22467	791	976	24234
June "	71332	75562	27737	991	1058	29786
	2092576	2104523	768902	13983	24058	806943

LEICESTER BOOT AND SHOE WORKS TRADE.—*Continued.**From the time of commencing to keep a separate Account.*

QUARTERLY ACCOUNTS.

Date.	RATE ON PRODUCTION.		NET PROFIT.		NET LOSS.		Stocks.
	Per cent.	Per £.	Amount	Rate.	Amount	Rate.	
	£ s. d.	s. d.	£	s. d.	£	s. d.	
March, 1885.....	37 14 11	7 6 $\frac{1}{2}$	517	0 4 $\frac{3}{8}$	..	..	18374
June ".....	38 10 9	7 8 $\frac{3}{4}$	1241	0 9 $\frac{3}{4}$	..	..	17401
September ".....	41 3 5 $\frac{1}{4}$	8 2 $\frac{3}{4}$	296	0 2 $\frac{7}{8}$	..	..	16116
December ".....	39 12 7	7 11 $\frac{1}{8}$	1024	0 9 $\frac{3}{8}$	..	..	15752
March, 1886.....	36 9 6	7 3 $\frac{1}{2}$	688	0 5 $\frac{1}{8}$	..	..	20081
June ".....	37 14 3	7 6 $\frac{1}{2}$	2725	1 3 $\frac{3}{8}$	..	..	16020
September ".....	38 11 8 $\frac{1}{4}$	7 8 $\frac{1}{2}$	2121	1 6 $\frac{1}{8}$	..	..	16266
December ".....	41 8 7 $\frac{3}{8}$	8 3 $\frac{3}{8}$	525	0 4 $\frac{1}{4}$	..	..	17736
March, 1887.....	35 13 0 $\frac{5}{8}$	7 1 $\frac{5}{8}$	1337	0 10 $\frac{1}{4}$	..	..	23050
June ".....	38 11 7 $\frac{5}{8}$	7 8 $\frac{1}{2}$	2681	1 4 $\frac{1}{2}$	..	..	19075
September ".....	41 15 3 $\frac{7}{8}$	8 4 $\frac{1}{4}$	964	0 8 $\frac{1}{4}$	..	..	17666
December ".....	40 4 9 $\frac{5}{8}$	8 0 $\frac{1}{2}$	1362	0 11 $\frac{1}{4}$	..	..	19118
March, 1888.....	37 2 11 $\frac{3}{4}$	7 5 $\frac{1}{8}$	1920	1 1 $\frac{1}{2}$	..	..	23460
June ".....	39 13 9 $\frac{3}{8}$	7 11 $\frac{1}{2}$	3408	1 6	..	..	21218
September ".....	42 11 8 $\frac{7}{8}$	8 6 $\frac{1}{8}$	1147	0 8 $\frac{1}{4}$	..	..	20345
December ".....	40 7 7 $\frac{1}{8}$	8 0 $\frac{3}{8}$	..	..	22	0 0 $\frac{1}{8}$	22496
March, 1889.....	36 12 10 $\frac{1}{2}$	7 3 $\frac{7}{8}$	2300	1 2 $\frac{5}{8}$	..	..	28976
June ".....	38 11 6	7 8 $\frac{1}{2}$	4311	1 7	..	..	25376
September " (14 weeks).....	42 17 0 $\frac{1}{4}$	8 6 $\frac{1}{4}$	1430	0 7 $\frac{5}{8}$	..	..	26394
December ".....	38 19 10 $\frac{3}{8}$	7 9 $\frac{1}{2}$	306	0 2	..	..	33265
March, 1890 (12 weeks)	37 0 10 $\frac{1}{4}$	7 4 $\frac{7}{8}$	2053	0 9 $\frac{5}{8}$	..	..	35110
June " (14 weeks)	38 13 8 $\frac{3}{4}$	7 8 $\frac{3}{4}$	4700	1 5 $\frac{1}{4}$	..	..	35053
September ".....	38 10 1 $\frac{5}{8}$	7 8 $\frac{1}{2}$	1046	0 5 $\frac{3}{8}$	..	..	43442
December ".....	39 3 0 $\frac{1}{8}$	7 9 $\frac{1}{8}$	944	0 5	..	..	61935
March, 1891.....	39 8 5 $\frac{1}{2}$	7 10 $\frac{1}{2}$	1201	0 3 $\frac{7}{8}$	..	..	52523
June ".....	39 19 1 $\frac{1}{2}$	7 11 $\frac{1}{2}$	1812	0 6 $\frac{3}{4}$	..	..	55257
September ".....	40 1 7 $\frac{1}{4}$	8 0 $\frac{1}{8}$	755	0 3 $\frac{1}{8}$	..	..	57066
December ".....	42 0 0 $\frac{3}{8}$	8 4 $\frac{1}{4}$	..	..	1174	0 6 $\frac{3}{4}$	62980
March 1892.....	39 11 8 $\frac{7}{8}$	7 10 $\frac{7}{8}$	..	..	1131	0 4 $\frac{1}{4}$	56163
June ".....	39 8 4 $\frac{3}{8}$	7 10 $\frac{1}{2}$	4119	1 1 $\frac{3}{4}$	..	..	55554
	38 6 10 $\frac{3}{8}$	7 8	61577	..	5923	..	..
	Less Loss		5923	..			
	Leaves Net Profit ..		55654	0 6 $\frac{3}{4}$			

DURHAM SOAP WORKS SUPPLIES, EXPENSES, PROFIT, AND STOCKS.

From its Commencement.

QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Pro- duction.	EXPENSES.			
			Sundry.	Depre- ciation.	Interest.	Total.
	£	£	£	£	£	£
October, 1874	161	813	32	38	4	74
January, 1875	1938	2163	98	37	81	216
April "	2510	2540	117	38	54	209
July "	2620	2143	128	39	49	216
October "	1874	2484	139	39	54	232
January, 1876	2260	2142	128	39	56	223
April "	2657	2772	113	39	55	207
July "	2560	2523	115	39	57	211
*October "	2550	2146	125	39	69	238
January, 1877	1782	2284	135	60	90	285
April "	2371	2621	134	71	105	310
July "	2801	2653	144	82	121	347
October "	2724	3388	196	89	108	393
January, 1878	3202	3251	210	94	114	418
April "	3085	3421	310	98	125	533
July "	3070	2660	191	98	125	414
October "	2947	2868	194	74	89	357
January, 1879	2633	2220	188	75	91	354
*March "	2032	2326	159	56	70	285
†June "	2582	2726	203	77	96	376
September, "	2076	1912	169	72	92	333
December "	2213	2423	184	72	91	347
March, 1880	2388	2055	199	72	85	356
June "	3095	3040	175	72	81	328
September, "	3216	2937	193	73	79	345
December "	3031	3372	214	72	78	364
March, 1881	2656	2757	227	73	93	393
June "	3254	3411	173	73	87	333
September, "	3230	3340	199	73	97	369
December "	2731	2757	243	73	99	415
March, 1882	3336	3129	212	73	72	357
June "	3480	3815	212	73	98	383
September, "	3282	2795	179	73	100	352
December "	2703	2765	192	73	80	345
March, 1883	3089	3479	197	73	83	353
June "	3237	3251	188	73	92	353
September, "	4426	5099	267	73	85	425
December "	3999	4112	258	80	99	437
March, 1884	3855	3799	213	80	96	389
*June "	3854	3659	224	87	99	410
September, "	4008	3625	214	80	82	376
December "	3502	3638	198	80	66	344
March, 1885	4369	4311	243	80	66	389
June "	4691	4652	255	80	87	410
September, "	4722	4702	266	80	45	430
December "	4129	4329	353	80	75	508

* Fourteen weeks.

† Ten weeks.

‡ Twelve weeks.

DURHAM SOAP WORKS SUPPLIES, EXPENSES, PROFIT, AND
STOCKS.—*Con.*

From its Commencement.

QUARTERLY ACCOUNTS.

Date.	RATE ON PRODUCTION.		NET PROFIT.		NET LOSS.		Stocks.
	Per cent.	Per £.	Amount.	Rate.	Amount.	Rate.	
	£ s. d.	s. d.	£	s. d.	£	s. d.	£
October, 1874 ..	9 2 0	1 9 $\frac{3}{4}$	..	..	108	13 4 $\frac{3}{4}$	804
January, 1875 ..	9 19 8	1 11 $\frac{3}{4}$	127	1 3 $\frac{1}{2}$	..	..	1809
April " ..	8 4 7	1 7 $\frac{3}{4}$	82	0 7 $\frac{3}{4}$	..	..	1007
July " ..	10 1 7	2 0 $\frac{1}{4}$	182	1 4	..	..	1010
October " ..	9 6 0	1 10 $\frac{1}{4}$	92	0 11 $\frac{3}{4}$	..	..	1751
January, 1876 ..	10 8 2	2 1	..	..	120	1 0 $\frac{3}{4}$	1303
April " ..	7 9 4	1 6	11	0 1	..	..	1462
July " ..	8 7 3	1 8	97	0 9	..	..	2262
*October " ..	10 7 1	2 2	..	..	23	0 2	3029
January, 1877 ..	12 9 7	2 6	106	1 2 $\frac{1}{4}$	..	..	3871
April " ..	11 16 7	2 4 $\frac{1}{4}$	..	..	177	1 5 $\frac{7}{8}$	3401
July " ..	13 1 7	2 7 $\frac{1}{4}$	105	0 9	..	..	4353
October " ..	11 12 0	2 4 $\frac{1}{2}$	..	..	147	1 1	3289
January, 1878 ..	12 17 2	2 7	..	..	88	0 6 $\frac{9}{16}$	3721
April " ..	15 11 7	3 1	..	..	142	0 10 $\frac{1}{16}$	4495
July " ..	15 11 3	3 1	..	..	283	2 2 $\frac{3}{4}$	3947
October " ..	12 8 11	2 5 $\frac{3}{4}$	..	..	109	0 11	3374
January, 1879 ..	15 18 11	3 2 $\frac{1}{4}$	..	..	136	0 2 $\frac{7}{8}$	3130
*March " ..	12 4 9	2 5	77	0 7 $\frac{7}{8}$	..	..	2705
†June " ..	13 15 10	2 9	..	..	..	..	3657
September " ..	17 8 3	3 5 $\frac{3}{4}$	..	..	238	2 5 $\frac{3}{4}$	3536
December " ..	14 6 4	2 10 $\frac{1}{4}$	46	0 4 $\frac{1}{2}$	..	..	3769
March, 1880 ..	17 6 5	3 5 $\frac{5}{8}$	7	0 0 $\frac{7}{8}$	..	..	2680
June " ..	10 15 1	2 1 $\frac{1}{2}$	..	..	63	0 5	2786
September " ..	11 14 11	2 4 $\frac{1}{6}$	170	1 1 $\frac{7}{8}$	..	..	2238
December " ..	10 15 10	2 2	24	0 1 $\frac{1}{4}$	..	..	3571
March, 1881 ..	14 5 1	2 10 $\frac{1}{8}$	85	0 7 $\frac{3}{8}$	..	..	3426
June " ..	9 15 3	1 11 $\frac{1}{8}$	117	0 8 $\frac{1}{8}$	..	..	3466
September " ..	11 0 11	2 2 $\frac{1}{2}$	..	..	16	0 1	5369
December " ..	15 1 0	3 0 $\frac{5}{8}$	..	..	54	0 4 $\frac{5}{8}$	3707
March, 1882 ..	11 8 2	2 3 $\frac{3}{8}$	57	0 4 $\frac{3}{8}$	..	..	2834
June " ..	10 0 9	2 0	..	..	113	0 7	5405
September " ..	12 11 10	2 6 $\frac{1}{8}$	40	0 3 $\frac{3}{8}$	..	..	3807
December " ..	12 9 6	2 6	..	..	83	0 7 $\frac{1}{8}$	2628
March, 1883 ..	10 2 10	2 0 $\frac{1}{4}$	..	..	38	0 2 $\frac{1}{2}$	5047
June " ..	10 17 1	2 2	44	0 3 $\frac{1}{4}$	..	..	3838
September " ..	8 6 9 $\frac{3}{4}$	1 8	16	0 0 $\frac{5}{8}$	..	..	3990
December " ..	10 12 6 $\frac{1}{2}$	2 1 $\frac{1}{2}$	40	0 2 $\frac{1}{4}$	..	..	5185
March, 1884 ..	10 4 9	2 0 $\frac{1}{2}$	29	0 1 $\frac{3}{4}$	..	..	4594
*June " ..	11 4 1	2 2 $\frac{1}{4}$	..	..	53	0 3 $\frac{3}{8}$	4323
September " ..	10 7 5	2 0 $\frac{1}{4}$	59	0 3 $\frac{7}{8}$	..	..	2936
December " ..	9 9 1	1 10 $\frac{1}{8}$	62	0 4	..	..	3489
March, 1885 ..	9 0 5 $\frac{1}{2}$	1 9 $\frac{3}{8}$	65	0 3 $\frac{1}{2}$	..	..	3151
June " ..	8 16 3	1 9 $\frac{1}{2}$	294	1 3 $\frac{1}{2}$	..	..	6282
September " ..	9 2 10 $\frac{3}{4}$	1 9 $\frac{1}{4}$	292	1 2 $\frac{1}{4}$	..	..	4458
December " ..	11 14 8 $\frac{1}{4}$	2 4 $\frac{1}{4}$	256	1 2 $\frac{1}{8}$	..	..	4361

DURHAM SOAP WORKS SUPPLIES, EXPENSES, PROFIT, AND
STOCKS.—*Con.*

From its Commencement.

QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Pro- duction.	EXPENSES.			
			Sundry.	Depre- ciation.	Interest.	Total.
	£	£	£	£	£	£
March, 1886	3552	3727	253	80	71	404
June "	4230	3979	286	80	61	427
September "	4344	3768	329	80	61	470
December "	3760	4309	755	80	59	894
March, 1887	3435	3394	341	80	70	491
June "	3255	3066	312	80	59	451
September "	3963	3754	340	80	57	477
December "	4627	4674	523	80	58	661
March, 1888	4641	4513	538	80	70	688
June "	4404	4193	448	80	74	602
September "	6129	6245	460	80	64	604
December "	6582	7175	470	80	61	611
March, 1889	5378	5657	551	82	80	713
June "	6145	6089	410	82	76	568
*Sept'mb'r "	7234	6410	476	82	75	633
December "	5886	5830	384	82	68	534
†March, 1890	6069	5914	432	75	68	575
*June "	7522	6764	459	88	64	611
September "	7530	7754	445	82	60	587
December "	7335	7886	464	82	63	609
March, 1891	7766	7106	416	44	74	534
June "	8464	8505	495	43	67	605
September "	9065	8403	449	43	70	562
December "	8137	8289	509	43	58	610
March, 1892	8062	7535	451	43	73	572
June "	7907	7913	441	43	78	562
	292353	292160	20143	5058	5591	30792

* Fourteen weeks.

† Ten weeks.

‡ Twelve weeks.

DURHAM SOAP WORKS SUPPLIES, EXPENSES, PROFIT, AND
STOCKS.—*Con.*

From its Commencement.

QUARTERLY ACCOUNTS.

Date.	RATE ON PRODUCTION.		NET PROFIT.		NET LOSS.		Stocks.
	Per cent.	Per £.	Amount.	Rate.	Amount.	Rate.	
	£ s. d.	s. d.	£	s. d.	£	s. d.	£
March, 1886 ..	10 16 9½	2 2	288	1 6½	..	..	3373
June " ..	10 14 7½	2 1½	209	0 11½	..	..	3198
September " ..	12 9 5½	2 5½	216	0 11½	..	..	2707
December " ..	20 4 5¼	4 1¼	28	0 1¼	..	..	3999
March, 1887 ..	14 9 4	2 10½	210	1 2½	..	..	4685
June " ..	14 14 2¼	2 11¼	92	0 6¼	..	..	3756
September " ..	12 14 1½	2 6½	183	0 11	..	..	2795
December " ..	14 2 10	2 9½	39	0 2	..	..	3637
March, 1888 ..	15 4 10¾	3 0½	79	0 4	..	..	3833
June " ..	14 7 1½	2 10½	93	0 5	..	..	3803
September " ..	9 13 5½	1 11½	223	0 8½	..	..	2901
December " ..	8 10 3¾	1 8½	195	0 7	..	..	5448
March, 1889 ..	12 12 0¾	2 6½	..	..	365	1 4½	4936
June " ..	9 6 6¾	1 10½	208	0 8	..	..	5073
*Sept'mb'r " ..	9 17 6	1 11½	124	0 4	..	..	4371
December " ..	9 3 2¼	1 9½	267	0 10½	..	..	4938
March, 1890 ..	9 14 5¾	1 11¼	94	0 3½	..	..	4749
*June " ..	9 0 7¾	1 9½	259	0 8¼	..	..	4566
September " ..	7 11 4¾	1 6½	190	0 6	..	..	2838
December " ..	7 14 8½	1 6½	190	0 6½	..	..	5097
March, 1891 ..	7 10 3½	1 6	261	0 8	..	..	4509
June " ..	7 2 3½	1 5	259	0 7½	..	..	4247
September " ..	6 13 9½	1 4	351	0 9¼	..	..	3465
December " ..	7 7 2½	1 5½	377	0 11	..	..	5694
March, 1892 ..	7 11 9¾	1 6½	274	0 8½	..	..	6230
June " ..	7 2 0½	1 5	349	0 10½	..	..	4720
	10 10 9¾	2 1½	7640	..	2356	..	..
	Less Loss		2356	..			
	Leaves Net Profit		5284	0 4¼			

* Fourteen weeks.

† Ten weeks.

‡ Twelve weeks.

BATLEY WOOLLEN MILL TRADE.

From its Commencement.

QUARTERLY ACCOUNTS.

Date.	Net Sup- plies.	Produce- tion.	EXPENSES.				RATE ON PRODUCTION.				NET PROFIT.		NET LOSS.		Stocks
			Sundry	Depre- ciation.	Interest	Total.	Per cent.		Per £	Amount	Rate.	Amount	Rate.		
							£	s. d.							
March, 1887	£ ..	£ 184	£ 318	£ 2	£ 1	£ 321	£ 174	9 1½	s. d. 34 10½	£	s. d.	£ 228	s. d.	£ 487	
June, 1887	320	2354	1006	15	21	1042	44	5 3½	8 10½	....	....	181	11 3¼	3569
Sept., "	1042	2449	1074	54	59	1187	48	9 4½	9 8½	25	0 5¼	....	....	6010
Dec., "	1116	3508	1322	60	83	1465	41	15 2¼	8 4½	....	....	99	1 9½	8061
March, 1888	3059	2502	1241	63	99	1403	56	1 6	11 2½	....	....	311	2 0¾	8249
June, "	2326	2361	1422	76	113	1611	68	4 8	13 7½	....	....	799	6 10½	8888
Sept., "	910	4403	1723	77	139	1939	44	0 9½	8 9½	....	....	156	3 5	13705
Dec., "	5295	4570	1677	81	162	1920	42	0 3½	8 4½	....	....	363	1 4¾	11876
March, 1889	5195	3602	1356	81	130	1567	43	10 0½	8 8½	....	....	186	0 8½	10115
June, "	3523	3284	1383	82	128	1593	48	10 1½	9 8½	....	....	433	2 5½	10550
Sept., " (14 weeks) ..	3131	2669	1438	84	144	1666	62	8 4½	12 5½	....	....	1152	7 4½	11239
Dec., "	5340	2777	1528	86	132	1746	62	17 5½	12 6½	....	....	2147	8 0½	7308
March, 1890 (12 weeks) ..	3181	2740	1177	80	94	1351	49	6 1½	9 10½	....	....	342	2 1¾	7284
June, " (14 weeks) ..	3679	3264	1434	97	106	1637	50	3 0½	10 0½	....	....	423	2 3½	6330
Sept., "	3074	3197	1325	90	97	1512	47	5 10½	9 5½	15	0 1½	....	....	6349
Dec., "	3135	3754	1549	96	99	1744	46	9 1½	9 3½	....	....	11	0 0¾	7326
March, 1891	4002	3885	1507	96	102	1705	43	17 8½	8 9½	....	....	13	0 0½	6883
June, "	4342	4455	1515	100	105	1720	38	12 1½	7 8½	277	1 3¼	....	....	7148
Sept., "	3973	4054	1487	100	102	1689	41	13 3	8 4	228	1 1½	..	..	7391
Dec., "	4701	4784	1758	100	98	1956	40	17 8½	8 2½	130	0 6½	..	..	7740
March, 1892	4882	4428	1580	100	99	1779	40	2 1½	8 0½	10	0 0½	..	..	6461
June, "	3898	3826	1453	107	96	1656	43	5 7½	8 7¼	188	0 11½	..	..	6613
	70124	73050	30273	1727	2209	34209	46	16 7	9 4¾	873	....	6849	....	....
										Less Profit ..	....	873	....	....
										Leaves Net Loss.	1 8¾	5976	1 8¾		

LEEDS AND BATLEY READY-MADES DEPARTMENT.

From its Commencement.

QUARTERLY ACCOUNTS.

Date.	Net Supplies.	EXPENSES.				NET PROFIT.		Stocks.
		Sundry.	Depreciation	Interest.	Total.	Amount.	Rate.	
	£	£	£	£	£	£	s. d.	£
December, 1888	318	392	13	8	413	Loss 182	11 5 $\frac{1}{4}$	320
March, 1889	820	645	14	11	670	"	6 5 $\frac{3}{4}$	415
June, 1889	1331	833	14	10	857	"	0 9 $\frac{1}{4}$	528
September, 1889	892	656	15	15	686	"	4 3	620
December, 1889	1089	699	15	13	727	"	5 6 $\frac{1}{4}$	495
March, 1890 (12 weeks)	1394	698	14	15	727	Profit 56	0 9 $\frac{5}{8}$	990
June, 1890 (14 weeks)	2169	753	17	17	787	"	0 5	818
September, 1890	966	632	16	15	663	"	0 6 $\frac{1}{8}$	928
December, 1890	1673	1106	31	24	1161	Loss 258	3 0 $\frac{7}{8}$	1316
March, 1891	3417	1530	33	28	1591	Profit 38	0 2 $\frac{5}{8}$	1199
June, 1891	2381	1427	33	30	1490	"	1 0 $\frac{3}{8}$	1923
September, 1891	3344	1551	35	34	1620	"	2 0 $\frac{1}{2}$	2123
December, 1891	3787	1425	34	29	1488	"	0 11 $\frac{1}{2}$	1498
March, 1892	4311	2134	35	31	2200	"	1 9 $\frac{1}{4}$	2033
June, 1892	3816	1938	38	32	2008	"	0 8	1993
	31708	16419	357	312	17088	73	0 0 $\frac{1}{2}$	....

QUARTERLY ACCOUNTS.

Date.	SUPPLIES.		TOTAL EXPENSES.		NET PROFIT.		Loss.		Stocks.
	Selves.	Scottish.	Total.	Amount.	Rate.	Amount.	Rate.	Amount.	
	£	£	£	£	s. d.	£	s. d.	£	£
September, 1886	1355	....	1355	50	2 2½	....	....	6	282
December "	2613	....	2613	222	1 8½	....	....	31	540
March, 1887	2728	43	2771	197	1 5½	17	0 1½	....	567
June "	2818	42	2860	246	1 8½	35	0 2½	....	523
September "	2881	71	2952	199	1 4½	63	0 5½	....	509
December "	3498	148	3646	234	1 3½	64	0 4½	....	596
March, 1888	3543	153	3696	232	1 3	95	0 6½	....	736
June "	3761	154	3915	261	1 4	63	0 3½	....	730
September "	3219	370	3589	257	1 5½	93	0 6½	....	831
December "	3950	395	4345	250	1 1½	102	0 5½	....	1116
March, 1889	4074	295	4369	230	1 0½	53	0 2½	....	1122
June "	3877	363	4240	284	1 4	194	0 10½	....	1472
September "	4444	211	4655	285	1 2½	128	0 6½	....	1152
December "	5071	314	5385	375	1 4½	158	0 7	....	1929
March, 1890	4729	521	5250	340	1 3½	159	0 7½	....	2381
June "	5446	165	5611	467	1 7½	47	0 2	....	2568
September "	5219	118	5337	426	1 7½	108	0 4½	....	2340
December "	6398	177	6575	411	1 3	229	0 8½	....	3053
March, 1891	6157	26	6183	425	1 4½	137	0 5½	....	3014
June "	5600	....	5600	4-3	1 8½	104	0 4½	....	2948
September "	5687	....	5687	433	1 6½	14	0 0½	....	2716
December "	9794	....	9794	478	0 11½	233	0 5½	....	2884
March, 1892	6774	....	6774	485	1 5½	22	0 6½	....	3411
June "	7744	....	7744	523	1 4½	114	0 3½	....	3699
	111380	3566	114946	7893	1 4½	2232	....	37	....
			Less Loss			37	....	
			Leaves Net Profit			2195	0 4½		

MANCHESTER GROCERY AND PROVISION SALES, EXPENSES,
PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1875 (3 quarters)	1110155	11716	0 2½	11986	0 2½	71360
" 1876	1476536	14701	0 2½	19042	0 3	56487
" 1877 (53 weeks)	1707637	17692	0 2½	27993	0 3½	68205
" 1878	1761017	16866	0 2½	25745	0 3½	53790
" 1879	1683613	17373	0 2½	26502	0 3½	55319
December, 1879 (50 weeks)	1590007	16761	0 2½	28826	0 4½	71446
" 1880	1998384	18911	0 2½	30977	0 3½	70091
" 1881	2047210	19883	0 2½	32460	0 3½	87277
" 1882	2298350	23666	0 2½	30644	0 3½	141191
" 1883	2544409	28337	0 2½	27455	0 2½	109414
" 1884 (53 weeks)	2457288	28522	0 2½	24893	0 2½	107524
" 1885	2375945	27484	0 2½	41757	0 4½	92790
" 1886	2571435	29777	0 2½	41381	0 3½	113620
" 1887	2827624	32979	0 2½	45516	0 3½	129565
" 1888	3092225	35914	0 2½	49798	0 3½	139849
" 1889 (53 weeks)	3503195	39805	0 2½	61452	0 4½	112395
" 1890	3517114	41548	0 2½	65984	0 4½	123432
" 1891	4112569	46620	0 2½	74882	0 4½	192161
	42674713	468555	0 2½	667293	0 3½	....

MANCHESTER DRAPERY SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
Jan., 1874 (1 quarter) ..	10575	348	0 8	201	0 4½	....	....	11568
" 1875	71290	3872	1 1	1244	0 4½	....	....	36824
" 1876	129486	7264	1 1½	720	0 1½	....	....	72408
" 1877 (53 weeks) ..	147083	9391	1 3½	....	....	1420	0 2½	69267
" 1878	124918	8879	1 5½	....	....	4144	0 7½	48511
" 1879	134746	8518	1 3½	635	0 1½	....	....	44439
Dec., 1879 (50 weeks) ..	126824	7817	1 2½	1674	0 3½	....	....	43225
" 1880	139421	8511	1 2½	2314	0 4	....	....	44105
" 1881	132914	8168	1 2½	1932	0 3½	....	....	42203
" 1882	143019	8337	1 1½	3504	0 5½	....	....	40854
" 1883	156997	8976	1 1½	4171	0 6½	....	....	41365
" 1884 (53 weeks) ..	165770	8365	1 0	5283	0 7½	....	....	38026
" 1885	173233	9067	1 0½	5387	0 7½	....	....	44948
" 1886	195139	9728	0 11½	5333	0 6½	....	....	54130
" 1887	210705	10793	1 0½	3624	0 4½	....	....	59695
" 1888	232277	11350	0 11½	4791	0 4½	....	....	62110
" 1889 (53 weeks) ..	256449	13168	1 0½	4539	0 4½	....	....	87849
" 1890	311365	15612	1 0	6991	0 5½	....	....	84739
" 1891	339213	16306	0 11½	7915	0 5½	....	....	82524
	3201424	174475	1 1	60258	....	5564	....	....
Less Depreciation allowed, see Disposal of Profit Account, October, 1877		£4757						
" Loss		5564		10321	....		
Leaves Net Profit				49937	0 3½			

NOTE.—To December, 1883, the figures include Woollens and Ready-Mades Department.

MANCHESTER WOOLLENS AND READY-MADES DEPARTMENT.

From the time of commencing to publish a separate Account in Balance Sheet.

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
December, 1884	23368	1221	1 2 ³ / ₈	409	0 4 ³ / ₄	....	....	4407
„ 1885	21210	1249	1 2 ¹ / ₈	336	0 3 ³ / ₄	....	....	5242
„ 1886	22173	1417	1 3 ¹ / ₄	327	0 3 ¹ / ₂	....	....	6275
„ 1887	21820	1427	1 3 ⁵ / ₈	....	....	2	....	6112
„ 1888	23047	1547	1 4	....	....	25	0 0 ¹ / ₄	8450
„ 1889 (53 weeks) ..	26813	1845	1 4 ¹ / ₂	....	....	212	0 1 ⁷ / ₈	12277
„ 1890	26693	2095	1 6 ³ / ₄	....	....	1284	0 11 ¹ / ₂	11463
„ 1891	31946	2465	1 6 ¹ / ₂	....	....	2294	1 5 ¹ / ₈	19761
	194070	13266	1 4 ³ / ₈	1072	....	3817	....	....
		Less Profit				1072	....
		Leaves Net Loss				2745	0 3 ³ / ₈	

MANCHESTER BOOT AND SHOE SALES, EXPENSES, PROFIT,
AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	d.	£	d.	£
January, 1874 (1 quarter)	5506	204	8 ¹ / ₄	1	..	4715
„ 1875	37257	1129	7 ¹ / ₄	748	4 ¹ / ₄	5197
„ 1876	53885	1326	5 ¹ / ₅	775	3 ³ / ₈	7711
„ 1877 (53 weeks)	57307	1811	7 ¹ / ₂	586	2 ³ / ₈	6082
„ 1878	58304	1975	8 ¹ / ₈	786	3 ¹ / ₈	7935
„ 1879	59327	2192	8 ³ / ₄	767	3	10242
December, 1879 (50 weeks)	55270	2135	9 ¹ / ₄	752	3 ¹ / ₄	10964
„ 1880	62139	2387	9 ¹ / ₈	755	2 ¹ / ₈	11484
„ 1881	71382	2492	8 ³ / ₈	842	2 ³ / ₈	11377
„ 1882	76101	2583	8 ¹ / ₅	1246	3 ¹ / ₅	12564
„ 1883	86056	2382	8	1261	3 ¹ / ₅	12938
„ 1884 (53 weeks)	99694	3150	7 ¹ / ₂	1586	3 ¹ / ₄	16576
„ 1885	106755	3596	8	1395	3 ¹ / ₄	16074
„ 1886	121432	3772	7 ³ / ₈	2767	5 ³ / ₈	16578
„ 1887	126099	4070	7 ³ / ₈	3083	5 ³ / ₄	19727
„ 1888	139188	4864	8 ³ / ₈	2940	5	22680
„ 1889 (53 weeks)	163002	5491	8	3772	5 ¹ / ₅	24067
„ 1890	188530	5983	7 ¹ / ₂	4957	6 ¹ / ₄	32095
„ 1891	218180	7194	7 ¹ / ₈	4958	5 ¹ / ₂	36875
	1785414	59236	7 ⁷ / ₈	33977	4 ¹ / ₂	..

MANCHESTER FURNISHING SALES, EXPENSES, PROFIT,
AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
Jan., 1877 (27 weeks)	5944	405	1 4 ³ / ₄	..	..	52	0 2	2571
" 1878.....	15464	984	1 3 ¹ / ₄	65	0 1	..	..	2286
" 1879.....	17374	1185	1 4 ¹ / ₄	140	0 1 ⁷ / ₈	..	..	2421
Dec., 1879 (50 weeks)	18361	1108	1 2 ³ / ₈	60	0 0 ³ / ₄	..	..	3524
" 1880.....	24243	1317	1 1	404	0 4	..	..	4307
" 1881.....	24844	1293	1 0 ¹ / ₂	171	0 1 ³ / ₈	..	..	3971
" 1882.....	29021	1515	1 0 ¹ / ₂	219	0 1 ¹ / ₄	..	..	3630
" 1883.....	34804	1878	1 0 ⁵ / ₈	423	0 2 ⁷ / ₈	..	..	4274
" 1884 (53 weeks)	44311	2253	1 0	673	0 3 ¹ / ₄	..	..	5433
" 1885.....	51238	2415	0 11 ¹ / ₄	893	0 4 ⁵ / ₈	..	..	5817
" 1886.....	62340	2657	0 10 ¹ / ₈	1129	0 4 ¹ / ₄	..	..	6041
" 1887.....	72932	3497	0 11 ¹ / ₂	946	0 3	..	..	9497
" 1888.....	85484	4755	1 1 ¹ / ₄	546	0 1 ¹ / ₂	..	..	8548
" 1889 (53 weeks)	96163	4952	1 0 ¹ / ₄	1436	0 3 ¹ / ₂	..	..	9770
" 1890.....	122661	5389	0 10 ¹ / ₂	2351	0 4 ¹ / ₂	..	..	12930
" 1891.....	137106	5993	0 10 ³ / ₈	2048	0 3 ¹ / ₂	..	..	12567
	842290	41596	0 11 ³ / ₄	11504	..	52	..	..
		Less Loss.....		52	..			
		Leaves Net Profit		11452	0 3 ¹ / ₄			

NEWCASTLE BRANCH GROCERY AND PROVISION SALES,
EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1877 (53 weeks).....	529244	7727	0 3 ¹ / ₂	4531	0 2	34591
" 1878.....	541783	8213	0 3 ³ / ₈	4139	0 1 ³ / ₄	28996
" 1879.....	457597	7402	0 3 ⁷ / ₈	3168	0 1	22789
December, 1879 (50 weeks).....	465108	6823	0 3 ¹ / ₂	7234	0 3 ³ / ₈	49145
" 1880.....	588664	7868	0 3 ¹ / ₈	4636	0 1 ¹ / ₄	44398
" 1881.....	703337	8921	0 3	9296	0 3 ¹ / ₂	54648
" 1882.....	795007	10098	0 3	3741	0 2 ³ / ₈	65330
" 1883.....	871597	10785	0 2 ⁷ / ₈	10476	0 2 ⁷ / ₈	55152
" 1884 (53 weeks).....	930803	11395	0 2 ⁷ / ₈	12451	0 3 ¹ / ₈	65158
" 1885.....	936542	12075	0 3	14422	0 3 ³ / ₈	53546
" 1886.....	949878	12321	0 3	18794	0 4 ¹ / ₈	71265
" 1887.....	966148	14220	0 3 ¹ / ₂	11026	0 2 ³ / ₈	59632
" 1888.....	1027528	14125	0 3 ¹ / ₄	19143	0 4 ¹ / ₈	65838
" 1889 (53 weeks).....	1100451	14947	0 3 ¹ / ₄	18421	0 4	55671
" 1890.....	1173876	15147	0 3	26496	0 5 ³ / ₈	42136
" 1891.....	1431849	16944	0 2 ³ / ₄	31480	0 5 ¹ / ₄	54737
	13469412	179011	0 3 ¹ / ₈	204454	0 3 ³ / ₈	..

NEWCASTLE BRANCH DRAPERY SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1877 (53 weeks)	39896	1728	0 10 ³ / ₄	796	0 4 ³ / ₄	11525
" 1878.....	49559	2211	0 10 ³ / ₄	999	0 4 ³ / ₄	11635
" 1879.....	44161	2159	0 11 ¹ / ₄	612	0 3 ¹ / ₄	10463
December, 1879 (50 weeks).....	44674	2153	0 11 ¹ / ₄	871	0 4 ³ / ₄	11590
" 1880.....	55979	2494	0 10 ³ / ₄	2206	0 9 ³ / ₄	16171
" 1881.....	69081	2656	0 9 ³ / ₄	2339	0 8 ¹ / ₄	16075
" 1882.....	84457	2975	0 8 ³ / ₄	3656	0 10 ³ / ₄	15754
" 1883.....	99354	3387	0 8 ³ / ₄	4499	0 10 ³ / ₄	16594
" 1884 (53 weeks)	118345	3983	0 8 ³ / ₄	4503	0 9 ¹ / ₄	18906
" 1885.....	142701	4598	0 7 ³ / ₄	6906	0 11 ¹ / ₄	24084
" 1886.....	152433	5342	0 8 ³ / ₄	7562	0 11 ¹ / ₄	28645
" 1887.....	144713	5868	0 9 ³ / ₄	5845	0 9 ³ / ₄	25537
" 1888.....	161974	5973	0 8 ³ / ₄	6373	0 9 ³ / ₄	30177
" 1889 (53 weeks)	185443	6515	0 8 ³ / ₄	7600	0 9 ³ / ₄	32799
" 1890.....	232360	6850	0 7 ³ / ₄	10588	0 10 ³ / ₄	33216
" 1891.....	251466	7500	0 7 ³ / ₄	10886	0 10 ³ / ₄	35964
	1876596	66392	0 8 ³ / ₄	76241	0 9 ³ / ₄	..

NEWCASTLE BRANCH BOOT AND SHOE SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1877 (53 weeks).....	25379	649	0 6 ¹ / ₄	406	0 3 ³ / ₄	1505
" 1878.....	28425	760	0 6 ¹ / ₄	690	0 5 ³ / ₄	2242
" 1879.....	28375	880	0 7 ³ / ₄	310	0 2 ³ / ₄	3179
December, 1879 (50 weeks).....	27708	935	0 8 ³ / ₄	357	0 3 ³ / ₄	4681
" 1880.....	34963	1276	0 8 ³ / ₄	649	0 4 ³ / ₄	5971
" 1881.....	42991	1307	0 7 ¹ / ₄	933	0 5 ¹ / ₄	4645
" 1882.....	54487	1527	0 6 ³ / ₄	1336	0 5 ¹ / ₄	6561
" 1883.....	65501	1955	0 7 ¹ / ₄	1890	0 6 ³ / ₄	5817
" 1884 (53 weeks).....	75054	2408	0 7 ³ / ₄	1917	0 6 ¹ / ₄	8266
" 1885.....	89117	2783	0 7 ³ / ₄	2195	0 5 ³ / ₄	11319
" 1886.....	97148	3646	0 9 ³ / ₄	1619	0 4 ³ / ₄	13442
" 1887.....	91029	3929	0 10 ¹ / ₄	1173	0 3 ³ / ₄	13974
" 1888.....	101272	3978	0 9 ³ / ₄	1547	0 3 ³ / ₄	14483
" 1889 (53 weeks)	90528	3570	0 9 ³ / ₄	1236	0 3 ¹ / ₄	12463
" 1890.....	113149	3753	0 7 ³ / ₄	2299	0 4 ³ / ₄	11870
" 1891.....	124707	3871	0 7 ³ / ₄	3127	0 6 ³ / ₄	12628
	1089838	37227	0 8 ¹ / ₄	21689	0 4 ³ / ₄	..

NOTE.—To December, 1888, the figures include Furnishing Department.

NEWCASTLE BRANCH FURNISHING SALES, EXPENSES, PROFIT,
AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING.	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
Dec. 1889 (53 weeks)	49078	2736	1 13 ³ / ₈	....	....	112	0 0 ¹ / ₂	6636
„ 1890	89409	3551	0 9 ¹ / ₂	2499	0 6 ⁵ / ₈	....	....	10474
„ 1891	99241	4220	0 10 ¹ / ₈	2178	0 5 ¹ / ₄	....	....	12002
	237728	10507	0 10 ¹ / ₂	4677	....	112	....	....
		Less Loss.....		112	....		
		Leaves Net Profit ..		4565	0 4 ¹ / ₂			

LONDON BRANCH GROCERY SALES, EXPENSES, PROFIT,
AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		Stocks.
		Amount.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1875 (3 qrs.).....	72385	1542	0 5 ¹ / ₈	567	0 17 ⁷ / ₈	7315
„ 1876	130752	2365	0 4 ¹ / ₂	1584	0 2 ¹ / ₂	7219
„ 1877 (53 weeks)	184879	3026	0 3 ³ / ₄	4182	0 5 ³ / ₄	12668
„ 1878	210415	3283	0 3 ³ / ₄	2320	0 2 ⁵ / ₈	10511
„ 1879	216314	3381	0 3 ³ / ₄	2388	0 2 ⁵ / ₈	8489
December, 1879 (50 weeks)	232660	3570	0 3 ³ / ₄	5239	0 5 ³ / ₈	13594
„ 1880	274965	4066	0 3 ³ / ₄	3559	0 3 ³ / ₄	20789
„ 1881	289748	5310	0 4 ¹ / ₈	2149	0 1 ³ / ₄	7394
„ 1882	296767	5001	0 4	3776	0 3	10636
„ 1883	337753	5441	0 3 ⁷ / ₈	4630	0 3 ¹ / ₄	13282
„ 1884 (53 weeks)	375963	6233	0 4	5062	0 3 ¹ / ₄	18869
„ 1885	445876	7485	0 4	9101	0 4 ³ / ₄	24256
„ 1886	527904	8463	0 3 ³ / ₄	9719	0 4 ³ / ₄	24739
„ 1887	652882	11336	0 4 ¹ / ₈	8839	0 3 ¹ / ₄	47319
„ 1888	739279	14028	0 4 ¹ / ₂	9377	0 3	41562
„ 1889 (53 weeks)	848378	15176	0 4 ¹ / ₄	10667	0 3	44017
„ 1890	893470	17020	0 4 ¹ / ₂	12668	0 3 ³ / ₈	57347
„ 1891	1122798	20910	0 4 ³ / ₈	11438	0 2 ³ / ₈	75578
	7853188	127636	0 4 ¹ / ₈	107265	0 3 ¹ / ₄	....

LONDON BRANCH DRAPERY SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	SALES.			EXPENSES.		PROFIT.		LOSS.		Stocks
	Drapery and Fur- nishing	Boots and Shoes.	Total.	Amount.	Rate.	Amount.	Rate.	Amount.	Rate.	
	£	£	£	£	s. d.	£	s. d.	£	s. d.	£
Dec., 1880 (2 qrs.)	1657	6500	8157	312	0 9 $\frac{1}{8}$	36	0 1	..	..	3805
" 1881	12558	13448	26006	1268	0 11 $\frac{5}{8}$	149	0 1 $\frac{3}{4}$	..	..	7054
" 1882	16936	15629	32565	1636	1 0	312	0 2 $\frac{1}{4}$	..	..	9524
" 1883	21754	17983	39737	2412	1 2 $\frac{1}{2}$	286	0 1 $\frac{1}{2}$	..	..	10011
" 1884 (53 wks)	29003	19826	48829	2807	1 1 $\frac{3}{4}$	532	0 2 $\frac{3}{4}$	..	..	9977
" 1885	40448	22324	62772	3554	1 1 $\frac{1}{2}$	684	0 2 $\frac{1}{2}$	..	..	11502
" 1886	53749	26090	79839	4529	1 1 $\frac{1}{2}$	776	0 2 $\frac{1}{4}$	..	..	13713
" 1887	63224	19191	82415	5530	1 4	..	..	191	0 0 $\frac{1}{2}$	14967
" 1888	77888	....	77888	6901	1 9 $\frac{1}{4}$	..	..	1513	0 4 $\frac{5}{8}$	19484
" 1889 (53 wks)	61455	....	61455	6050	1 11 $\frac{1}{2}$	..	..	2959	0 11 $\frac{1}{2}$	18189
" 1890	67084	....	67084	5317	1 7	..	..	1902	0 6 $\frac{3}{4}$	12607
" 1891	78583	....	78583	5752	1 5 $\frac{1}{2}$	..	..	7	..	18020
	524339	140991	665330	46068	1 4 $\frac{1}{2}$	2775	..	6572	..	....
			Less Profit					2775	..	
			Lerves Net Loss.....					3797	0 1 $\frac{1}{4}$	

NOTE.—To September, 1837, and March, 1889, Boot and Shoe and Furnishing figures included respectively.

LONDON BRANCH BOOT AND SHOE SALES, EXPENSES, PROFIT,
AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
December, 1887 (13 weeks)	£ 7155	£ 323	s. d. 0 10 $\frac{3}{4}$	£ ..	s. d. ..	£ 47	s. d. 0 1 $\frac{1}{2}$	£ 3891
„ 1888	30103	1593	1 0 $\frac{5}{8}$	89	0 0 $\frac{5}{8}$	..	..	4884
„ 1889 (53 weeks)	32653	1791	1 1 $\frac{1}{8}$	..	..	55	0 0 $\frac{3}{8}$	6305
„ 1890	35527	1933	1 1	165	0 1	..	..	6051
„ 1891	41249	2317	1 1 $\frac{3}{8}$	24	0 0 $\frac{1}{8}$	..	..	7337
	146687	7957	1 1	278	..	102	..	..
	Less Loss.....			102	..			
	Leaves Net Profit			176	0 0 $\frac{1}{4}$			

LONDON BRANCH FURNISHING SALES, EXPENSES, PROFIT,
AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	EXPENSES.		PROFIT.		LOSS.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
		£	s. d.	£	s. d.	£	s. d.	
December, 1889 (40 weeks)	22084	1805	1 7½	..	..	333	0 3½	4526
" 1890	31873	2682	1 8½	..	..	619	0 4½	3957
" 1891	40983	3056	1 5½	..	..	318	0 1½	4693
	94940	7543	1 7	..	..	1270	0 3½	..

CRUMPSALL BISCUIT WORKS SUPPLIES, EXPENSES, PROFIT,
AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Net Sup- plies.	Production.	EXPENSES.				RATE ON PRODUCTION.		NET PROFIT.		Stocks.
			Sun- dry.	Depre- ciation.	In- terest	Total.	Per cent.	Per £.	Amount	Rate per £.	
			£	£	£	£	£ s. d.	s. d.	£	s. d.	
Jan., 1874*..	2987	2878	604	60	87	751	26 1 10	5 2½	15	0 1¼	1678
" 1875..	13189	13124	2190	323	495	3008	22 18 5	4 7	228	0 4½	2029
" 1876..	13664	13392	2515	324	371	3210	23 19 5	4 9½	712	1 0¾	1538
" 1877†.	15866	16065	3282	398	441	4121	25 13 0	5 1½	630	0 9¾	2867
" 1878..	18018	18126	2672	444	500	3616	19 18 11	3 11½	514	0 6¾	2961
" 1879..	17553	17289	2798	481	481	3760	21 15 0	4 4½	1518	1 9	2506
" 1879†.	16623	16454	2852	532	447	3831	23 5 8	4 7½	1004	1 2½	2335
Dec., 1880..	19153	19069	2985	572	429	3986	20 18 1	4 2½	983	1 0½	1793
" 1881..	20122	20274	3056	576	429	4061	20 0 7	4 0	887	0 10½	2105
" 1882..	21632	21578	3095	578	401	4074	18 17 7	3 9¼	1498	1 4½	1703
" 1883..	21897	21712	3228	589	408	4225	19 9 2	3 10	2081	1 11	1896
" 1884†.	21549	21565	3841	665	430	4936	22 17 9	4 6½	2030	1 10½	2129
" 1885..	21479	21830	4794	786	454	6034	27 12 9	5 6¼	1491	1 4¾	3534
" 1886..	23534	22885	5815	897	529	7241	31 12 9½	6 3½	Loss 61	0 0½	4207
" 1887..	28314	29100	6371	1278	745	8394	28 16 10	5 9½	" 3	..	5518
" 1888..	32079	32155	6616	1364	862	8842	27 9 11½	5 5½	" 222	0 1½	7633
" 1889†.	42081	42836	7483	1375	929	9787	22 16 11	4 6¼	1274	0 7¼	9411
" 1890..	51916	54197	9431	1394	957	11782	21 14 9	4 4½	39	0 0½	12712
" 1891..	68561	70942	11874	1778	1312	14964	21 1 10½	4 2½	3281	0 11½	22353
	476217	475471	85502	14414	10707	110623	23 5 3¾	4 7¼	17899	0 9½	..

* One quarter. † Fifty-three weeks. ‡ Fifty weeks. || Profit.

LEICESTER BOOT AND SHOE WORKS SUPPLIES, EXPENSES,
PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Net Sup- plies.	Production.	EXPENSES.				RATE ON PRODUCTION.				NET PROFIT.		NET LOSS.		Stocks.
			Sun- dry.	Depre- ciation.	Interest	Total.	Per cent.	Per £.	Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£	s. d.	£	s. d.	£
Jan., 1874*..	3422	5190	1281	6	29	1316	25 6 8	5 0 ³³ ₁₀₀	..	..	8	0 0 ¹ ₂	2579		
" 1875..	29456	38684	10047	36	342	10425	26 18 11	5 4 ⁵ ₁₀₀	584	0 3 ⁵ ₁₀₀	..	..	6466		
" 1876..	53687	53702	16936	124	543	17603	32 15 6	6 6 ⁵ ₁₀₀	912	0 4 ⁵ ₁₀₀	..	..	9186		
" 1877†..	62205	60104	20631	246	780	21657	36 0 6	7 2 ⁵ ₁₀₀	886	0 3 ¹ ₁₀₀	..	..	14131		
" 1878..	71140	67603	23357	416	1023	24796	36 13 6	7 4	211	0 0 ¹ ₁₀₀	..	..	12922		
" 1879..	73881	72939	25902	424	998	27324	37 9 9	7 6	1575	0 5 ¹ ₁₀₀	..	..	14515		
Dec., 1879..	77476	77746	28016	417	945	29378	37 15 8	7 6 ⁵ ₁₀₀	1645	0 5	..	..	24733		
" 1880..	84655	84429	29866	444	1241	31551	37 7 4	7 5 ² ₁₀₀	..	..	309	0 0 ³ ₁₀₀	15772		
" 1881..	87607	89150	32682	448	1087	34217	38 8 8	7 8	452	0 1 ¹ ₁₀₀	..	..	15594		
" 1882..	99098	99517	36388	495	1113	37996	38 3 5	7 7 ¹ ₁₀₀	1649	0 3 ⁷ ₁₀₀	..	..	14192		
" 1883..	91986	90214	33868	511	1040	35419	39 5 2	7 10 ¹ ₁₀₀	190	0 0 ⁵ ₁₀₀	..	..	10384		
" 1884†..	107166	106333	39237	838	1267	41342	38 17 7	7 9 ¹ ₁₀₀	3261	0 7 ¹ ₁₀₀	..	..	17800		
" 1885..	109464	107806	39846	1077	1315	42238	39 3 7	7 10	3078	0 6 ³ ₁₀₀	..	..	15752		
" 1886..	122463	122703	44731	1104	1244	47079	38 7 4 ³ ₁₀₀	7 8	6059	0 11 ³ ₁₀₀	..	..	17736		
" 1887..	126417	124324	45895	1120	1230	48245	38 16 1 ³ ₁₀₀	7 9 ¹ ₁₀₀	6344	1 0	..	..	19118		
" 1888..	143488	139955	53206	1124	1381	55711	39 16 1 ³ ₁₀₀	7 11 ¹ ₁₀₀	6453	0 10 ³ ₁₀₀	..	..	22496		
" 1889†	172267	175712	65998	1236	1633	68867	39 3 10 ¹ ₁₀₀	7 10	8347	0 11 ¹ ₁₀₀	..	..	33265		
" 1890..	206499	220763	81461	1140	2134	84735	38 7 7 ¹ ₁₀₀	7 8	8743	0 10 ¹ ₁₀₀	..	..	61935		
" 1891..	235410	230858	89350	995	2679	93024	40 5 10 ¹ ₁₀₀	8 0 ⁵ ₁₀₀	2594	0 2 ⁵ ₁₀₀	..	..	62980		
1957787 1967732 713698 12201 22024 752923 38 5 3 ¹ ₁₀₀										7 7 ³ ₁₀₀	52983	..	317	..	..
Less Loss.....										317					
Leaves Net Profit										52666	0 6 ³ ₁₀₀				

* One quarter.

† Fifty-three weeks.

‡ Fifty weeks.

HECKMONDWIKE BOOTS, SHOES, AND CURRYING WORKS
SUPPLIES, EXPENSES, PROFIT, AND STOCKS.

From its Commencement.

IN YEARS.

YEAR ENDING	Total Sup- plies.	Boot & Shoe Production.	TOTAL EXPENSES.				B. & S. RATE ON PRODUCTION.				NET PROFIT.		NET LOSS.		Stocks.		
			Sun- dry.	Depre- ciation.	Interest	Total.	Per cent.		Per £.	Amount	Rate.	Amount	Rate.				
	£	£	£	£	£	£	s.	d.	s.	d.	£	s.	d.	£	s.	d.	£
Dec., 1830*	3060	3438	1057	16	30	1103	32	1 7	6	4 ⁷ / ₈	....	....	181	1	0 ⁵ / ₈	2473
" 1881..	11151	11417	3592	57	157	3806	33	6 8	6	8	....	....	608	1	0 ⁴ / ₈	2238
" 1882..	14602	15454	5041	66	183	5290	34	4 8	6	10 ¹ / ₈	....	....	163	0	2 ¹ / ₂	4016
" 1883..	16661	16377	5435	68	222	5725	34	19 1 ⁷ / ₈	6	11 ¹ / ₈	294	0	4 ¹ / ₂	....	....	3950
" 1884†	18215	18138	5924	94	220	6238	34	7 10	6	10 ¹ / ₈	287	0	3 ¹ / ₄	....	....	3506
" 1885..	22666	23811	7832	176	256	8264	34	14 1	6	11 ¹ / ₈	261	0	2 ¹ / ₂	....	....	5314
" 1886..	22231	23418	7867	267	405	8539	36	9 3 ¹ / ₈	7	3 ¹ / ₈	375	0	4	....	....	6869
" 1887..	22519	19641	7110	313	380	7803	37	10 3 ¹ / ₈	7	6	237	0	2 ¹ / ₂	....	....	5382
" 1888..	29307	22998	9371	488	588	10447	35	3 10 ¹ / ₈	7	0 ¹ / ₈	1021	0	9 ⁵ / ₈	....	....	10863
" 1889†	29815	22899	9155	602	687	10444	35	10 8 ¹ / ₈	7	1 ¹ / ₈	1922	1	5 ¹ / ₄	....	....	10280
" 1890..	35135	28064	11036	719	797	12552	34	15 9 ¹ / ₈	6	11 ¹ / ₈	1398	0	10 ¹ / ₄	....	....	11325
" 1891..	42919	34853	13903	748	872	15523	36	1 2 ¹ / ₈	7	2 ¹ / ₂	3280	1	8 ⁵ / ₈	....	....	14594
	268281	240508	87323	3614	4797	95734	35	5 11 ¹ / ₂	7	0 ⁵ / ₈	9075	....	952	....	....	....
							Less Loss				952	....				
							Leaves Net Profit..				8123	0 7 ⁵ / ₈					

* Two quarters.

† Fifty-three weeks.

HECKMONDWIKE CURRYING SUPPLIES, &c., STATED SEPARATELY.

FIGURES INCLUDED IN PREVIOUS ACCOUNT.

From its Commencement.

IN YEARS.

YEAR ENDING	Supplies.	EXPENSES.					PROFIT.		LOSS.		
		Sundry.	Depreci- ation.	Interest.	Total.	Rate.	Amount.	Rate.	Amount.	Rate.	Stocks.
	£	£	£	£	£	s. d.	£	s. d.	£	s. d.	£
December, 1887 (one q'rter)	538	391	27	17	435	16 2	55	2 0½	..	..	213
„ 1888	3362	2065	169	119	2353	13 11½	413	2 5½	..	..	687
„ 1889 (53 weeks).	3263	1937	227	143	2307	14 1½	..	..	202	1 2¾	306
„ 1890	4103	2361	262	166	2789	13 7½	390	1 10¼	..	..	399
„ 1891	4404	2524	264	167	2955	13 5	340	1 6½	..	..	415
	15670	9278	949	612	10839	13 10	1198	..	202	..	..
		Less Loss					202	..			
		Leaves Net Profit					926	1 3¼			

DURHAM SOAP WORKS SUPPLIES, EXPENSES, PROFIT,
AND STOCKS.

From its Commencement.

IN YEARS.

YEAR ENDING	Net Sup- plies.	Production.	EXPENSES.				RATE ON PRODUCTION.		NET PROFIT.		NET Loss.		Stocks.				
			Sun- dry.	Depre- ciation.	Interest	Total.	Per cent.	Per £.	Amount	Rate.	Amount	Rate.					
	£	£	£	£	£	£	s.	d.	s.	d.	£	s.	d.	£			
Jan., 1875*	2099	2976	130	75	85	290	9	14	10	1	11 $\frac{1}{2}$	19	0	1 $\frac{1}{2}$	1809		
„ 1876	9264	9309	512	155	213	880	9	9	0	1	10 $\frac{3}{4}$	236	0	6	1303		
„ 1877†	9549	9725	488	177	271	936	9	12	6	1	11	191	0	4 $\frac{5}{8}$	3871		
„ 1878	11098	11913	684	336	448	1468	12	6	5	2	5 $\frac{1}{2}$	..	..	307	0	6 $\frac{1}{2}$	3721
„ 1879	11735	11169	883	345	430	1653	14	16	10	2	11 $\frac{1}{2}$	..	..	670	1	2 $\frac{3}{4}$	3130
Dec., 1879+	8903	9387	715	277	349	1341	14	5	8	2	10 $\frac{1}{4}$	..	..	115	0	2 $\frac{1}{2}$	3769
„ 1880	11730	11404	781	289	323	1393	12	4	3	2	5 $\frac{1}{4}$	138	0	2 $\frac{1}{2}$	..	..	3571
„ 1881	11871	12265	842	292	376	1510	12	6	2	2	5 $\frac{1}{2}$	132	0	2 $\frac{1}{2}$	..	..	3707
„ 1882	12801	12504	795	292	350	1437	11	9	10	2	3 $\frac{1}{2}$	..	..	99	0	1 $\frac{1}{2}$	2628
„ 1883	14751	15941	910	299	359	1568	9	16	8	1	11 $\frac{1}{2}$	62	0	0 $\frac{1}{2}$	..	..	5185
„ 1884†	15219	14721	849	327	343	1519	10	6	4	2	0 $\frac{1}{2}$	97	0	1 $\frac{1}{8}$	..	..	3489
„ 1885	17911	17994	1117	520	390	1737	9	13	0	1	11 $\frac{1}{2}$	907	1	0	..	..	4361
„ 1886	15886	15783	1623	320	252	2195	13	18	1 $\frac{1}{2}$	2	9 $\frac{1}{2}$	741	0	11 $\frac{1}{2}$	..	..	3999
„ 1887	15280	14888	1516	320	244	2080	13	19	5	2	9 $\frac{1}{4}$	524	0	8 $\frac{1}{2}$	..	..	3637
„ 1888	21756	22126	1916	320	269	2505	11	6	5 $\frac{1}{2}$	2	3 $\frac{1}{2}$	590	0	6 $\frac{1}{2}$	..	..	5448
„ 1889†	24643	23986	1821	328	299	2448	10	4	1	2	0 $\frac{1}{2}$	234	0	2 $\frac{1}{2}$	..	..	4938
„ 1890	28456	28318	1800	327	255	2382	8	8	2	1	8 $\frac{1}{2}$	733	0	6 $\frac{1}{2}$	..	..	5097
„ 1891	33432	32303	1869	173	269	2311	7	3	0	1	5 $\frac{1}{8}$	1248	0	8 $\frac{7}{8}$	..	..	5694
	276384	276712	19251	4972	5435	29658	10	14	4 $\frac{1}{4}$	2	1 $\frac{5}{8}$	5852	..	1191	..	..	..
												1191	..				
												4661	0	4			

* Two quarters.

† Fifty-three weeks.

† Fifty weeks.

BATLEY WOOLLEN MILL TRADE.

From its Commencement.

IN YEARS.

DATE.	Net Supplies.	Production.	EXPENSES.			RATE ON PRODUCTION.			NET LOSS.			Stocks.
			Sundry.	Depre- ciation.	Interst.	Total.	Per cent.	Per £.	Amount.	Rate.		
	£	£	£	£	£	£	£	s. d.	s. d.	£	s. d.	£
December, 1887	2478	8495	3720	131	164	4015	47 5	31 1/2	9 5 3/4	483	3 10 3/4	8061
" 1888	11590	13836	6963	297	513	6873	49 13	5 1/2	9 11 1/2	1629	2 9 1/2	11876
" 1889*	17189	12332	5705	333	534	6572	53 5	10 1/2	10 7 1/2	3918	4 6 1/2	7308
" 1890	13069	12955	5485	363	396	6244	48 3	11 1/2	9 7 1/2	766	1 2 1/2	7326
" 1891	17018	17178	6257	396	407	7070	41 3	1 1/2	8 2 1/2	† 622	0 8 1/2	7740
	61344	64796	27240	1520	2014	30774	47 9	10 3/4	9 5 1/2	† 6174	2 0 1/2	..

* Fifty-three weeks. † Profit. ‡ Loss.

LEEDS AND BATLEY READY-MADES.

From its Commencement.

IN YEARS.

DATE.	Net Supplies.	EXPENSES.			NET LOSS.			Stocks.
		Sundry.	Depre- ciation.	Inter'st.	Total.	Amount	Rate.	
	£	£	£	£	£	£	s. d.	£
December, 1888*	318	392	13	8	413	182	11 5 1/4	320
" 1889†	4132	2833	54	49	2940	812	3 11 1/8	495
" 1890	6202	3189	78	71	3338	131	0 5	1316
" 1891	12929	5933	135	121	6189	† 687	1 0 3/4	1498
	23581	12347	284	249	12380	|| 438	0 4 3/8	..

One quarter. † Fifty-three weeks. ‡ Profit. || Less.

LONGTON CROCKERY DEPOT TRADE.

From its Commencement.

IN YEARS.

DATE.	SUPPLIES.			TOTAL EXPENSES.		NET PROFIT.		Stocks.
	Selves.	Scot'ish	Total.	Amount	Rate.	Amount	Rate.	
	£	£	£	£	s. d.	£	s. d.	£
December, 1886 (2 quarters)	3968	..	3968	372	1 10 1/2	Loss 37	0 2 1/8	540
" 1887	11925	304	12229	876	1 5 1/4	179	0 3 1/2	596
" 1888	14473	1072	15545	1000	1 3 3/8	353	0 5 3/8	1116
" 1889 (53 weeks)	17466	1183	18649	1174	1 3	533	0 6 1/4	1929
" 1890	21792	981	22773	1644	1 5 1/4	543	0 5 3/8	3053
" 1891	27238	26	27264	1819	1 4	498	0 4 1/4	2884
	93862	3563	100428	6885	1 4 3/4	2059	0 4 3/8	..

DISTRIBUTIVE EXPENSES AND RATE PER CENT ON

SALES = Expenses =	TOTALS.		MANCHESTER	
	£8,029,890.		GROCERY.	
	£4,112,569.			
	Amount.	Rate ₧ £100.	Amount.	Rate ₧ £100.
	£	d.	£	d.
Wages.....	60842·30	181·85	18831·46	109·90
Auditors' Fees.....	240·00	·72	122·96	·72
" Deputation Fees.....	16·90	·05	8·65	·05
" Fares	105·71	·31	54·18	·32
" Deputation Fares	25·94	·08	13·28	·08
Fees—General and Branch Committees....	740·51	2·21	281·85	1·64
" Sub-Committees	506·36	1·51	142·05	·83
" Finance Committee	80·80	·24	41·38	·24
" Stocktakers	47·23	·15	4·88	·03
" Scrutineers	11·40	·03	5·85	·03
" Secretaries	90·00	·27	25·00	·14
" Deputations	591·97	1·77	268·68	1·57
Mileages—General and Branch Committees	181·40	·54	69·52	·41
" Sub-Committees	144·48	·43	21·59	·13
" Finance Committee	32·55	·10	16·67	·10
" Stocktakers	10·35	·03	·61	·00
" Deputations.....	58·39	·17	15·88	·09
Fares and Contracts—General and Branch				
Committees	539·79	1·61	229·48	1·34
" Sub-Committees	264·92	·80	78·79	·46
" Finance Committee	16·19	·05	8·35	·05
" Stocktakers	10·34	·03	·97	·00
" Scrutineers	12·43	·04	6·37	·04
" Deputations	891·04	2·66	401·18	2·34
Price Lists: Printing	1428·18	4·27	660·65	3·85
" Postage.....	300·67	·90	146·68	·86
Balance Sheets: Printing	333·88	1·00	165·19	·96
Printing and Stationery	4917·76	14·70	1867·83	10·90
Periodicals	128·97	·39	69·41	·40
Travelling.....	5278·10	15·78	925·40	5·40
Telegrams.....	391·92	1·17	269·72	1·57
Stamps	3872·40	11·57	1967·00	11·48
Petty Cash	324·92	·97	175·99	1·03
Advertisements	529·73	1·58	254·79	1·49
Rents, Rates, and Taxes	2670·09	7·98	836·46	4·88
Coals, Gas, and Water	2684·22	8·02	1015·48	5·93
Oil, Waste, and Tallow	148·41	·44	63·95	·37
Repairs and Renewals	2362·80	7·06	784·31	4·58
Expenses Quarterly Meeting.....	360·22	1·08	243·15	1·42
Legal	48·07	·14	34·26	·20
Employés' Picnic	79·97	·24	27·75	·16
Annals.....	1029·88	3·08	528·71	3·09
Telephones	252·32	·75	130·68	·76
Dining-rooms	3115·80	9·31	1412·95	8·25
Conference Expenses	20·15	·06	15·28	·09
Opening Expenses—Nottingham Saleroom	22·20	·07	22·20	·13
Insurance—Fire and Guarantee	1989·03	5·95	311·24	1·82
Depreciation: Land	1292·85	3·86	417·07	2·43
" Buildings.....	6971·88	20·84	1578·95	9·21
" Fixtures	3367·41	10·06	764·13	4·46
Interest	33767·87	100·93	11281·37	65·84
	143150·70	427·85	46620·63	272·07

SALES FOR THE YEAR ENDING DECEMBER 26TH, 1891.

MANCHESTER.

DRAPERY.		WOOLLENS AND READY-MADES.		BOOT AND SHOE.		FURNISHING.	
£339,212.		£31,947.		£218,178.		£137,107.	
Amount.	Rate ₧ £100.	Amount.	Rate ₧ £100.	Amount.	Rate ₧ £100.	Amount.	Rate ₧ £100.
£	d.	£	d.	£	d.	£	d.
7272.97	514.57	1001.70	752.51	3069.82	337.69	2760.01	483.13
10.18	.72	.96	.72	6.61	.73	3.91	.68
.71	.05	.07	.05	.46	.05	.28	.05
4.48	.31	.42	.31	2.88	.32	1.72	.30
1.09	.07	.10	.07	.69	.07	.41	.07
23.41	1.65	2.20	1.65	15.17	1.67	9.01	1.58
52.28	3.69	5.22	3.92	34.63	3.81	21.28	3.73
3.45	.23	.33	.24	2.26	.25	1.34	.24
9.77	.68	1.88	1.41	2.20	.24	1.50	.26
.47	.03	.04	.03	.30	.03	.18	.03
7.42	.52	.45	.34	4.18	.46	2.95	.52
46.56	3.29	4.61	3.46	30.51	3.36	17.00	2.97
5.72	.40	.53	.39	3.58	.39	2.18	.38
17.33	1.22	1.67	1.25	11.04	1.21	6.78	1.19
1.38	.09	.13	.09	.91	.10	.53	.09
2.90	.20	.99	.74	.68	.07	.66	.11
4.15	.29	.29	.21	2.40	.26	1.20	.21
19.65	1.39	1.84	1.38	12.74	1.40	7.57	1.32
14.44	1.02	1.55	1.16	10.50	1.16	6.00	1.05
.68	.04	.06	.04	.45	.05	.26	.05
.82	.05	.29	.21	1.00	.11	.38	.06
.51	.03	.05	.04	.33	.04	.19	.03
64.44	4.55	5.50	4.13	39.30	4.32	22.43	3.93
.60	.04	..	..	49.52	5.45	62.73	10.98
13.66	.96	1.29	.96	5.78	.64	15.57	2.73
442.18	31.28	41.23	30.97	8.87	.98	5.26	.92
3.47	.24	4.95	3.72	281.44	30.96	169.31	29.64
918.34	65.00	415.21	311.92	2.40	.26	2.32	.41
5.44	.38	3.63	2.72	170.34	18.74	153.35	26.84
160.78	11.37	15.95	11.30	1.85	.20	6.66	1.17
18.78	1.32	1.31	.98	102.75	11.30	61.56	10.78
13.63	.96	13.41	10.07	12.98	1.42	8.93	1.56
168.57	11.90	12.41	9.32	56.94	6.26	4.95	.87
118.54	8.38	28.58	21.47	55.34	6.09	100.68	17.62
5.23	.37	.92	.69	136.23	14.99	104.49	18.29
121.24	8.57	10.17	7.64	3.34	.37	2.00	.35
19.49	1.37	1.83	1.37	43.90	4.83	21.93	4.36
.59	.04	.05	.04	12.48	1.37	7.45	1.30
7.30	.51	.94	.71	.34	.04	.22	.04
43.36	3.06	4.00	3.00	4.62	.50	4.39	.77
15.42	1.09	1.60	1.20	27.48	3.02	16.49	2.89
335.76	23.82	31.24	23.47	2.10	.23	5.79	1.01
1.21	.08	.10	.07	212.94	23.42	128.28	22.46
267.29	19.20	47.81	35.92	.73	.08	.44	.08
220.25	15.58	18.74	14.23	99.55	10.95	59.83	10.48
839.70	59.41	68.85	51.72	87.60	9.64	147.93	25.89
635.83	44.98	42.20	31.70	336.60	37.03	562.98	98.55
4362.86	308.68	669.43	502.90	155.57	17.12	139.47	24.41
				2069.43	227.64	1329.45	232.71
16305.83	1153.68	2465.83	1852.44	7193.76	791.32	5993.23	1049.09

DISTRIBUTIVE EXPENSES AND RATE PER CENT ON

		NEWCASTLE.					
SALES=	Expenses=	GROCERY.		DRAPERY.		BOOTS & SHOES.	
		£1,431,849.		£251,467.		£124,707.	
		Amount.	Rate ₧ £100.	Amount.	Rate ₧ £100.	Amount.	Rate ₧ £100.
		£	d.	£	d.	£	d.
Wages		7808.79	130.89	3282.99	313.33	1477.49	284.34
Auditors' Fees		42.75	.72	7.56	.72	3.77	.73
Deputation Fees		3.02	.05	.53	.05	.25	.05
Fares		18.85	.32	3.31	.32	1.65	.32
Deputation Fares		4.65	.08	.81	.08	.40	.08
Fees—General and Branch Committees		158.14	2.65	35.91	3.43	14.92	2.87
Sub-Committees		68.83	1.15	18.74	1.79	12.04	2.31
Finance Committee		14.31	.24	2.58	.25	1.29	.25
Stocktakers		3.56	.06	3.00	.29	1.50	.29
Scrutineers		2.08	.04	.34	.03	.17	.03
Secretaries		13.35	.22	7.42	.71	.65	.13
Deputations		28.70	.48	4.28	.41	2.12	.41
Mileages—Gen. & Branch Committees..		24.73	.41	4.81	.46	2.12	.41
Sub-Committees		7.21	.12	1.60	.15	.97	.19
Finance Committee		5.78	.10	1.03	.10	.52	.10
Stocktakers		0.31	.01	.66	.06	.08	.02
Deputations		0.86	.01	.31	.03	.14	.02
Fares and Contracts—General and							
Branch Committees		91.69	1.54	17.66	1.68	8.11	1.56
Sub-Committees		30.61	.51	8.86	.85	4.47	.86
Finance Committee		2.88	.05	.50	.05	.26	.05
Stocktakers		0.53	.01	.19	.02	.31	.05
Scrutineers		2.27	.04	.37	.04	.19	.04
Deputations		40.81	.68	4.49	.42	2.28	.44
Price Lists: Printing		135.11	2.27	..	..	11.51	2.21
Postage		29.97	.50	..	..	.98	.19
Balance Sheets: Printing		35.94	.60	6.36	.61	3.15	.61
Printing and Stationery		465.02	7.80	134.35	12.82	87.21	16.78
Periodicals		13.39	.22	1.05	.10	.48	.09
Travelling		439.78	7.37	429.52	40.99	224.60	43.22
Telegrams		77.60	1.30	4.00	.38	4.00	.76
Stamps		359.48	6.03	139.15	13.28	51.32	9.87
Petty Cash		38.58	.65	3.30	.32	2.28	.43
Advertisements		113.28	1.90	11.18	1.07	5.44	1.04
Rents, Rates, and Taxes		234.07	3.92	159.14	15.19	128.02	24.63
Coals, Gas, and Water		431.27	7.22	126.04	12.03	36.55	7.03
Oil, Waste, and Tallow		24.16	.40	4.19	.40	2.01	.38
Repairs and Renewals		213.71	3.58	70.47	6.71	42.87	8.25
Expenses—Quarterly Meeting		22.72	.38	4.02	.38	2.00	.38
Legal		0.38	.01	.07	.01	.04	.01
Employés' Picnic		8.73	.14	8.67	.83	2.19	.42
Annuals		184.65	3.09	31.80	3.03	15.81	3.04
Telephones		39.18	.66	3.64	.35	1.97	.38
Dining-rooms		457.39	7.67	120.73	11.52	60.48	11.64
Conference Expenses
Opening Expenses—Nottingham Sale							
room		146.00	2.45	129.88	12.39	79.08	15.22
Insurance—Fire and Guarantee		101.25	1.70	59.82	5.71	47.84	9.27
Depreciation: Land		678.35	11.37	417.42	39.84	335.85	64.63
Buildings		269.35	4.51	165.27	15.77	131.67	25.34
Fixtures		4049.87	67.83	2062.76	196.87	1058.22	203.66
Interest							
		16943.92	284.00	7500.78	715.87	3871.27	745.03

LES FOR THE YEAR ENDING DECEMBER 26TH, 1891.

NEWCASTLE.		L O N D O N .							
FURNISHING.		GROCERY.		DRAPERY.		BOOTS & SHOES.		FURNISHING.	
£99,242.		£1,122,797.		£78,584.		£41,248.		£40,983.	
Amount.	Rate per £100.	Amount.	Rate per £100.	Amount.	Rate per £100.	Amount.	Rate per £100.	Amount.	Rate per £100.
£	d.	£	d.	£	d.	£	d.	£	d.
036·81	492·57	8545·60	182·63	2404·27	734·28	989·55	575·77	1360·84	796·92
2·99	·72	33·50	·72	2·34	·71	1·24	·72	1·23	·72
·21	·05	2·38	·05	·17	·05	·09	·05	·08	·05
1·31	·32	14·79	·32	1·04	·32	·54	·31	·54	·32
·33	·08	3·66	·08	·26	·08	·13	·08	·13	·08
12·32	2·98	147·53	3·15	18·24	5·57	11·53	6·71	10·28	6·02
9·58	2·32	83·85	1·79	22·77	6·94	18·63	10·84	16·46	9·64
1·01	·24	11·22	·24	·79	·24	·42	·24	·42	·25
3·19	·77	6·25	·13	5·11	1·56	1·84	1·07	2·55	1·49
·14	·03	1·61	·03	·11	·03	·06	·04	·05	·03
·59	·14	19·33	·41	7·25	2·21	·78	·45	·63	·37
1·68	·40	146·98	3·14	18·87	5·77	9·37	5·45	12·61	7·38
1·66	·40	46·58	·99	9·77	2·98	5·85	3·40	4·35	2·55
·79	·19	45·84	·98	13·39	4·09	8·46	4·92	7·82	4·58
·41	·10	4·52	·09	·32	·10	·16	·09	·19	·11
·19	·05	1·38	·03	1·26	·38	·20	·12	·43	·25
·10	·02	26·64	·57	3·46	1·06	1·60	·93	1·36	·80
6·57	1·59	120·65	2·58	11·63	3·55	6·22	3·62	5·98	3·50
3·75	·90	84·80	1·81	11·40	3·48	4·95	2·88	4·81	2·82
·20	·05	2·23	·05	·15	·05	·09	·05	·08	·05
·31	·07	5·21	·11	·21	·06	·06	·04	·06	·04
·15	·05	1·76	·04	·12	·04	·06	·04	·06	·04
1·88	·46	234·23	5·01	37·99	11·60	12·46	7·25	21·05	14·08
10·95	2·65	412·19	8·81	35·00	10·69	18·85	10·97	31·07	18·19
2·70	·65	91·47	1·96	1·34	·41	3·04	1·77	3·14	1·84
2·53	·61	80·17	1·71	5·59	1·72	2·96	1·72	2·91	1·70
165·74	40·08	803·66	17·18	226·98	69·32	95·00	55·28	137·81	80·70
1·29	·31	27·05	·58	·98	·30	·64	·37	1·54	·90
69·39	16·73	731·13	15·63	411·48	125·67	171·47	99·77	217·69	127·48
2·00	·48	15·34	·33	·51	·15	·51	·30	·66	·39
108·83	26·32	606·38	12·96	163·17	49·83	62·51	36·37	74·42	43·58
2·35	·57	41·77	·89	12·65	3·87	2·92	1·69	3·08	1·80
4·21	1·02	45·30	·97	3·06	·93	1·67	·97	1·87	1·09
177·88	43·02	588·65	12·58	105·45	32·21	38·72	22·53	64·70	37·89
31·65	7·65	445·89	9·53	89·63	27·37	58·65	34·13	61·22	35·85
1·66	·40	30·36	·65	4·84	1·48	3·51	2·04	2·24	1·31
31·82	7·70	744·41	15·91	156·20	47·71	57·40	33·40	61·37	35·94
1·59	·38	40·25	·86	2·56	·78	1·35	·79	1·33	·78
·03	·01	11·09	·24	·30	·09	·14	·08	·16	·09
1·13	·27	9·15	·20	2·95	·90	·80	·47	1·35	·79
12·48	3·02	144·57	3·09	10·01	3·05	5·31	3·09	5·21	3·05
1·39	·34	33·05	·71	8·09	2·47	4·55	2·65	4·86	2·85
47·48	11·48	201·06	4·29	50·40	15·39	29·98	17·44	26·11	15·29
..	..	1·60	·03	·50	·16	·15	·09	·14	·08
57·59	13·93	404·76	8·66	216·70	66·18	81·23	47·26	88·07	51·57
49·60	12·00	83·25	1·78	30·95	9·46	9·70	5·64	18·85	11·04
349·92	84·62	1020·68	21·82	406·27	124·08	126·33	73·50	249·98	146·39
140·93	34·08	548·53	11·72	203·18	62·05	60·00	34·91	111·28	65·17
858·40	207·59	4157·28	88·86	1034·42	315·92	405·07	235·69	429·31	251·41
4219·71	1020·46	20909·48	446·93	5754·13	1757·34	2316·75	1347·99	3055·28	1789·26

The Co-operative Union Limited.

OFFICES :

14, CITY BUILDINGS, CORPORATION STREET, MANCHESTER.

THE CO-OPERATIVE UNION LIMITED is an organisation which has been formed for—

The promotion of the practice of truthfulness, justice, and economy in production and exchange.

(1) By the abolition of all false dealing, either—

a. Direct, by representing any article produced or sold to be other than what it is known to the producer or vendor to be ; or,

b. Indirect, by concealing from the purchaser any fact known to the vendor material to be known by the purchaser, to enable him to judge of the value of the article purchased.

(2) By conciliating the conflicting interests of the capitalist, the worker, and the purchaser, through an equitable division among them of the fund commonly known as *Profit*.

(3) By preventing the waste of labour now caused by unregulated competition.

Whoever seriously considers the enormous amount of evil caused to mankind at present by the non-observance of these principles in the transactions forming the staple of their daily lives, and the corresponding amount of good that would arise from their general adoption, must give a hearty support to a Union formed to promote their practice.

The Executive of the Union is THE CENTRAL BOARD, which is—

a. A Board of Legal and General Advice in all matters relating to the business and interest of societies as co-operative associations.

b. A Statistical Bureau, collecting and collating for the free use of the societies every kind of information likely to be of service to them.

c. A Propagandist Agency, organising and directing efforts for the dissemination of the principles of co-operation throughout Great Britain and Ireland, and afterwards to the world at large.

The Union consists of Industrial and Provident Societies, Joint-Stock Companies, or other Bodies Corporate.

No society is admitted into the Union unless its management is of a representative character, nor unless it agree—

(1) To accept the statement of principles given above as the rules by which it shall be guided in all its own business transactions.

(2) To contribute the annual payment following:—

a. If the number of members of any such society, or of the employés of any such industrial partnership, is less than 500, then the sum of 2d. for each member:

b. If the number of such members (or employés) exceeds 500, then, at least, the sum of 1,000d.

In estimating the number of members of a society comprising other societies each such society is considered to be one member.

The financial year commences on the 1st April in each year, and the subscription is considered due, 1d. in the first and 1d. in the third quarter, but may be wholly paid in the first quarter.

Secretaries forwarding Cheques on account of the Union are requested to make them payable to the Co-operative Union Limited; Money Orders to A. WHITEHEAD, Cashier.

Summary of the Law Relating to Societies

UNDER THE

INDUSTRIAL AND PROVIDENT SOCIETIES ACT, 1876,

THE CUSTOMS AND INLAND REVENUE ACT, 1880, AND THE PROVIDENT

NOMINATIONS AND SMALL INTESSTACIES ACT, 1883.

I. The Formation of Societies—

1. Application must be made to the Registrar of Friendly Societies, in London, Edinburgh, or Dublin, according to the case, on a form supplied by the office, signed by seven persons and the secretary, accompanied by two copies of the rules, signed by the same persons.

2. These rules must provide for twenty matters stated on the form of application.

3. No fees charged on the registration of a society.

N.B.—Model rules on these twenty matters can be obtained from the Registrar's office ; and the Co-operative Union Limited, 14, City Buildings, Corporation Street, Manchester, publishes, at the cost of 1½d. a copy, general rules, approved of by the Chief Registrar, providing also for many other matters on which rules are useful ; and capable of being adopted, either with or without alterations, by a few special rules, with a great saving in the cost of printing.

The General Secretary of the Union will prepare such special rules, without charge, on receiving a statement of the rules desired.

II. Rights of a Registered Society—

1. It becomes a body corporate, which can by its corporate name sue and be sued, and hold and deal with property of any kind, including shares in other societies or companies, and land to any amount.

2. Its rules are binding upon its members, though they may have signed no assent to them ; but may be altered by amendments duly made as the rules provide, and registered, for which a fee of 10s. is charged. The application for registration must be made on a form supplied by the Registrar's office.

3. It can sue its own members, and can make contracts, either under its seal or by a writing signed by any person authorised to sign, or by word of mouth of any person authorised to speak for it, which will be binding wherever a contract similarly made by an individual would bind him.

4. It may make all or any of its shares either transferable or withdrawable, and may carry on any trade, including the buying and selling of land, and banking under certain conditions, and may apply the profits of the business to any lawful purpose ; and, if authorised by its rules, may receive money on loan, either from its members or others, to any amount so authorised.

5. If it has any withdrawable share capital it may not carry on banking, but may take deposits, within any limits fixed by its rules, in sums not exceeding 5s. in any one payment, or £20 for any one depositor, payable at not less than two clear days' notice.

6. It may make loans to its members on real or personal security ; and may invest on the security of other societies or companies, or in any except those where liability is unlimited.

7. If the number of its shares is not limited either by its rules or its practice, it is not chargeable with income tax on the profits of its business.

8. It can, in the way provided by the Act, amalgamate with or take over the business of any other society, or convert itself into a company.

9. It can determine the way in which disputes between the society and its officers or members shall be settled.

10. It can dissolve itself, either by an instrument of dissolution signed by three-fourths of its members, or by a resolution passed by a three-fourths vote at a special general meeting, of which there are two forms—(A) purely voluntary, when the resolution requires confirmation at a second meeting; (B) on account of debts, when one meeting is sufficient. In such a winding up hostile proceedings to seize the property can be stayed.

III. Rights of the Members (see also IV., 4, 5, 6)—

1. They cannot be sued individually for the debts of the society, nor compelled to pay more towards them than the sum remaining unpaid on any shares which they have either expressly agreed to take or treated as their property, or which the rules authorise to be so treated.

2. If they transfer or withdraw their shares, they cannot be made liable for any debts contracted subsequently, nor for those subsisting at the time of the transfer or withdrawal, unless the other assets are insufficient to pay them.

3. Persons not under the age of 16 years may become members, and legally do any acts which they could do if of full age, except holding any office

4. An individual or company may hold any number of shares allowed by the rules, not exceeding the nominal value of £200, and any amount so allowed as a loan. A society may hold any number of shares.

5. A member who holds at his death not more than £100 in the society as shares, loans, or deposits, may, by a writing recorded by it, nominate, or vary or revoke the nomination of any persons to take this investment at his death; and if he dies intestate, without having made any subsisting nomination, the committee of management of the society are charged with the administration of the fund; subject in either case to a notice to be given to the Commissioners of Inland Revenue whenever the sum so dealt with exceeds £80.

6. The members may obtain an inquiry into the position of the society by application to the Registrar.

IV. Duties of a Registered Society—

1. It must have a registered office, and keep its name painted or engraved outside, and give due notice of any change to the Registrar.

2. It must have a seal on which its name is engraved.

3. It must have its accounts audited at least once a year, and keep a copy of its last balance sheet and the auditors' report constantly hung up in its registered office.

4. It must make to the Registrar, before the 1st of June in every year, a return of its business during the year ending the 31st December previous, and supply a copy of its last returns gratis to every member and person interested in its funds on application.

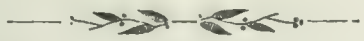
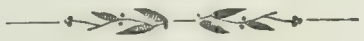
5. It must allow any member or person interested in its funds to inspect its books, other than the loan or deposit account of any other member.

6. It must supply a copy of its rules to every person on demand, at a price not exceeding one shilling.

7. If it carries on banking, it must make out in February and August in every year, and keep hung up in its registered office, a return, in a form prescribed by the Act; and it has also to make a return every February to the Stamp-office under the Banking Act.

The non-observance by a society of these duties exposes it and its officers to penalties varying from £1 to £50, which are in some cases cumulative for every week during which the neglect lasts.

THE
“Co-operative News”
 AND
 JOURNAL OF ASSOCIATED INDUSTRY.

—  —
 THE OFFICIAL ORGAN OF INDUSTRIAL AND PROVIDENT
 CO-OPERATIVE SOCIETIES.
 —  —

THE *NEWS* is the property of a Federation of Co-operative Societies located in all parts of Great Britain. It is an exponent of opinion, thoroughly impartial and comprehensive, upon all subjects connected with Association, particularly in its application to the Distribution and Production of Wealth. It is a free platform for the discussion of topics bearing upon the social well-being of the people, and affords an opportunity for the expression of every view of Co-operation which commends itself as thoughtful and sincere.

The importance of maintaining a vehicle for the conveyance of co-operative intelligence cannot be over-rated. Each society is invited to become a shareholder, and every individual co-operator is solicited to subscribe.

The *News* may be had by application to any Bookseller, through the Local Stores, or from the Offices of the Society,

88 AND 90, CORPORATION STREET, MANCHESTER;

119, PAISLEY ROAD, GLASGOW;

AND

35, RUSSELL STREET, COVENT GARDEN, LONDON, W.C.

N.B.—CLOTH CASES for the *News* will be SUPPLIED GRATIS to Societies who send copies to public and semi-public reading-rooms.

PRICE ONE PENNY WEEKLY.

Sold at many of the Stores at One Halfpenny.

THE
Co-operative Insurance Company
LIMITED.

ESTABLISHED 1867.

HEAD OFFICES :
CITY BUILDINGS, CORPORATION ST., MANCHESTER.

PRINCIPAL AGENCIES :
SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED,
119, PAISLEY ROAD, GLASGOW ;

And each Branch of the Co-operative Wholesale Society Limited.

DIRECTORS :

CHAIRMAN—MR. WILLIAM BARNETT, Macclesfield.
MR. WM. BAMFORTH, Manchester. MR. ROBERT HOLT, Rochdale.
MR. B. HEPWORTH, Heckmondwike. MR. A. MILLER, Glasgow.
MR. W. A. HILTON, Bolton. MR. T. RAWLINSON, Burnley.
MR. T. WOOD, Manchester.

AUDITORS :

MR. A. HACKNEY, Bolton, and MR. J. E. LORD, Rochdale.

MANAGER :

JAMES ODGERS.

BANKERS :

THE CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

THE CO-OPERATIVE INSURANCE COMPANY LIMITED was registered on August 29th, 1867, to enable Co-operative Societies and their Members to save the difference between the premiums usually charged for insurance and the actual losses and central and local expenses incurred.

This difference consists of two parts—

- (A) Any excess of Agents' Commission over fair payment for local work done; such commissions being fixed percentages, irrespective of the ratios of losses and expenses of management.
- (B) The balances of premiums left after paying claims, expenses, and commissions; such balances increasing the funds when the claims do not exceed the average, and reducing them when the claims are exceptionally heavy.

To establish the Company capital was found to be necessary, though the original intention was to have guarantees only, without any share capital. A practical combination of the need for capital and the desire to dispense with it was effected by forming a company limited by guarantee, and with a capital divided into shares—a constitution which has the following advantages, viz.:—

- (1) It permits a continuous growth of membership, even after a sufficient capital has been completely subscribed, and
- (2) It facilitates discrimination between the mutual interests of all the society members as agents for the insurance of their own property and the lives and property of their members, and the primary responsibility of such of their number as are also shareholders.

Every member, whether a shareholder or not, guarantees £5, no part of which is to be paid up except in the remote contingency of the Company being wound up. In the latter event no loss can be suffered under these guarantees, unless the fully subscribed capital of £50,000 should prove insufficient to meet the liabilities.

For assuming this primary responsibility the shareholders receive, out of the income arising from the investment of their own share capital and of the other funds (except the Life Insurance Fund) an annual dividend of 6 per cent upon one-fifth of their liability, *i.e.*, upon the four shillings per share called up, and 3 per cent upon the sum (if any) paid up in advance of calls.

To the extent that Co-operative Societies join the Company, as both members and agents, they obtain the commission referred to in clause A above, and are entitled to take part, by representation, in the general meetings, which elect the Directors and control the administration.

The balances of premiums referred to in clause B above are required by the Articles of Association to be accumulated to form three separate Insurance Funds, for the Fire, Fidelity, and Life Departments respectively, "neither of which shall be available for the payment of a dividend to shareholders as such," this growth of the funds being needed to provide for the growing liabilities of the Company under its policies.

The income from the investments of the Life Insurance Fund is credited to that fund, the profits of which are divisible exclusively with Life policy-holders. The balance of the income from all other investments is carried to the Reserve Fund to increase the general security.

The following statement shows the progress of the Company to the end of 1891:—

YEAR.	No. of Society Members.	Subscribed Capital, 4s. per Share Called up.	Fire Insurance.		Fidelity Guarantee.		Life Insurance.		Commission Allowed to Society Agen's.	Funds in excess of Paid-up Capital.
			Premiums after Deducting Re-Insurances.	Losses.	Pre-miums.	Losses.	Pre-miums.	Claims.		
		£	£	£	£	£	£	£	£	£
1868..	Seven months only—	£	included	with	next year.					
1869..	41	1,715	208	6	67	Nil.	Nil.	Nil.		188
1870..	41	1,715	157	1	123	..	..	..		378
1871..	42	4,216	173	Nil.	162	..	..	..		597
1872..	46	6,468	256	62	253	..	..	..		961
1873..	51	9,494	369	28	392	3	..	..		1,488
1874..	64	10,706	571	29	449	200	..	..		2,121
1875..	71	11,314	1,075	1,861	559	Nil.	..	..		1,508
1876..	89	11,877	1,725	39	457	..	..	..		3,444
1877..	96	12,365	3,896	1,613	525	270	..	..		5,250
1878..	109	13,208	6,343	6,933	399	Nil.	..	..		3,545
1879..	128	15,996	5,114	3,888	568	23	..	..		4,094
1880..	144	17,698	3,405	3,403	543	50	..	..		3,425
1881..	169	19,377	3,062	2,738	541	402	..	..		3,068
1882..	180	20,170	2,834	1,741	537	692	..	..		3,197
1883..	194	22,985	3,111	2,275	551	278	..	..		3,403
1884..	204	23,760	3,448	461	620	286	..	..		5,369
1885..	236	26,475	4,425	2,463	777	1,132	..	..		5,665
1886..	260	29,020	4,711	1,117	699	300	118	..		8,007
1887..	268	30,540	5,590	1,387	803	794	613	..		10,655
1888..	278	31,855	6,138	1,245	786	225	963	..		14,761
1889..	287	33,775	6,702	3,400	894	726	1,069	125		17,153
1890..	293	43,465	7,393	3,005	958	37	1,256	100		21,376
1891..	305	50,000	8,086	2,634	1070	268	1,692	25		26,767

The total authorised capital of £50,000 being now fully subscribed, new members are guarantors only until such time as they acquire shares by transfer from previous members. Individuals are no longer admitted members of the Company, and when existing members wish to dispose of their shares the preference as transferees is given to societies.

About 1,000 societies in England and Wales, Scotland and Ireland are insured by the Company. The 700 of them that are not yet members, and all other Co-operative Societies in the United Kingdom which are not yet connected with the Company in any way, are invited to join it as members and agents, and thus to obtain the commission and take part in the control, as above described.

The terms of commission allowed to society-agents are more favourable, in the Fire Department, to members than to non-members.

To the extent that Co-operative Societies more efficiently and economically do the work of individual insurance agents, they will displace them, and the balances disposable by the stores as dividend on sales will be increased, not only by the amount of the commission on the premiums received for insuring the members lives and property, but by the commission on insurances of the societies' own corporate property.

FIRE DEPARTMENT BEGUN 1868.

CLAIMS PAID, £40,329.

INSURANCES against loss by Fire are effected on Co-operative Stores, Dwelling-houses, Schools, Public Buildings, Churches, Chapels, Farming Property, and most other classes of risk.

Losses by Lightning are paid, also losses by the Explosion of Coal Gas in buildings other than gasworks.

Societies are invited to transfer Insurances from other companies to the 'Co-operative.' Their members are also invited to have their Houses, Furniture, and other property insured by it.

FIDELITY DEPARTMENT BEGUN 1869.

CLAIMS PAID, £5,686.

POLICIES are issued insuring Co-operative Societies against loss by acts of Embezzlement or Theft committed by persons employed by them in situations of trust.

LIFE DEPARTMENT BEGUN 1886.

CLAIMS PAID, £250.

LOW RATES.—Surplus divisible exclusively with Life policy-holders. Claims paid immediately after proof of death and title. All reasonable facilities given to prevent lapsing of policies. Liberal surrender values.

PREMIUMS FOR THE INSURANCE OF £100 at DEATH.

Age next Birthday.	Single Premium.	Yearly.	Half-yearly.	Quarterly.	Age next Birthday.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
20	37 8 6	1 15 8	0 18 10	0 10 0	20
30	43 17 1	2 5 10	1 4 0	0 12 8	30
40	51 13 3	3 1 8	1 12 1	0 16 8	40
50	60 17 5	4 7 6	2 5 4	1 3 4	50

PREMIUMS FOR THE INSURANCE OF £100 AT AGE 60 OR AT DEATH, IF THAT EVENT SHOULD OCCUR EARLIER.

Age next Birthday.	Single Premium.	Yearly.	Half-yearly.	Quarterly.	Age next Birthday.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
20	43 1 2	2 5 2	1 3 11	0 12 11	20
30	51 19 2	3 3 0	1 12 11	0 17 5	30
40	63 11 7	4 17 11	2 10 9	1 6 6	40
50	79 11 4	9 14 11	5 1 4	2 12 3	50

The Rates of Premium for other Insurances will be supplied on application.

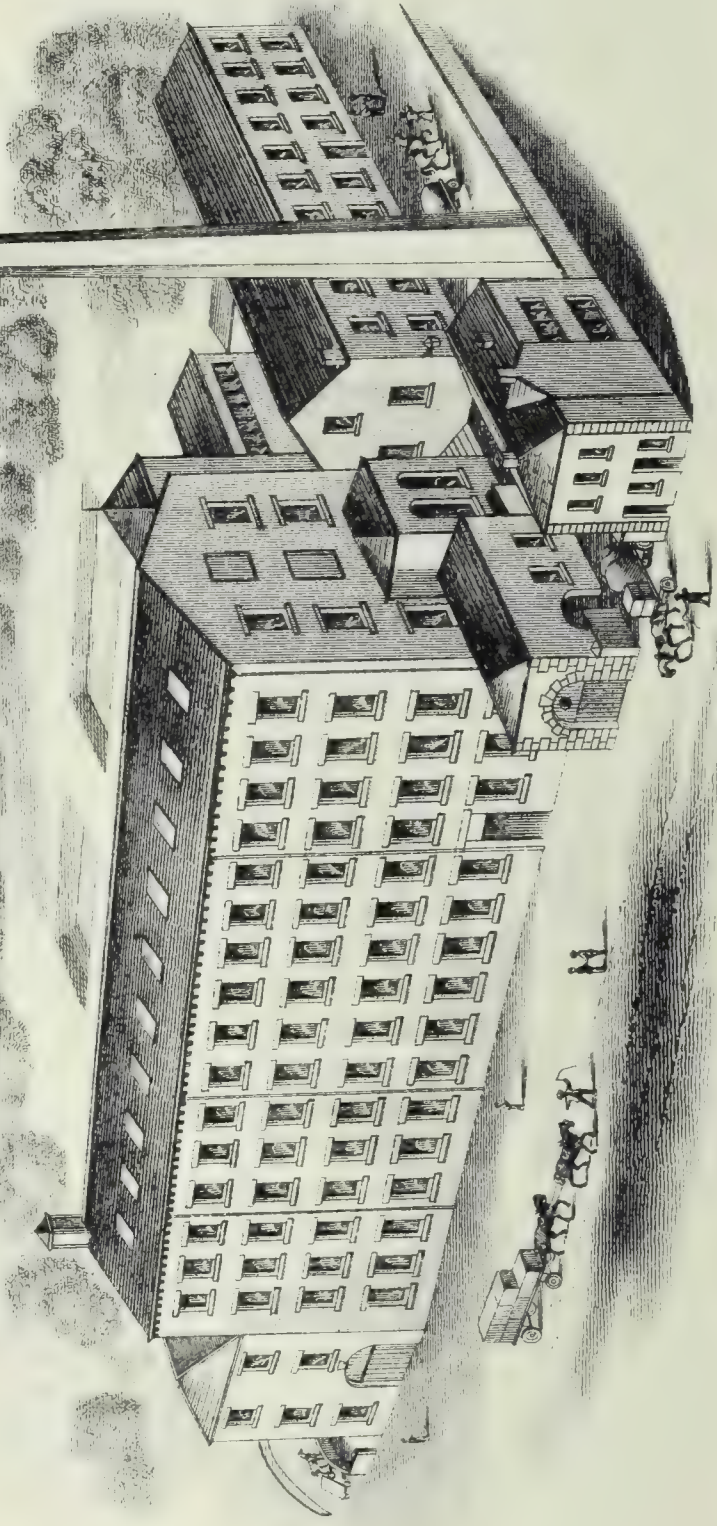
Policies Insuring £25, £50, and £75 are issued for proportionate parts of the premium for £100, subject to the limitation that no Life Policy is issued for a less premium than Five Shillings.

Forms of Application for Admission of Societies as Members, and for Appointment as Agents; also Proposal Forms for Insurance, may be obtained from the Office as above.

THE LANCASHIRE & YORKSHIRE PRODUCTIVE SOCIETY LIMITED.

Anti-Rheumatic Flannels.

Domestic Flannels.



MANUFACTURERS,

HARE HILL MILLS, LITTLEBOROUGH, near Manchester.



The Celebrated Economic Flannels.

We beg most respectfully to ask your kind and generous support of the above Society.

The various descriptions of FLANNELS now made are admitted by those who have fully tried them to be unsurpassed in MAKE, WEIGHT, QUALITY, and PRICE.

It is earnestly requested that all Co-operative Societies press the sale of these Flannels amongst their members.

Economy is the order of the day, and we are fully justified in describing the Flannels made at the above mills as

THE CELEBRATED ECONOMIC FLANNELS.

Whenever you are buying be sure and ask for them.

They can be had at any of the following Co-operative Establishments:

1, BALLOON STREET, MANCHESTER.

WATERLOO STREET, NEWCASTLE-ON-TYNE.

LEMAN STREET, WHITECHAPEL, LONDON.

SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY, PAISLEY ROAD, GLASGOW.
AND AT

THE MILLS, HARE HILL ROAD, LITTLEBOROUGH.

THE LANCASHIRE AND YORKSHIRE PRODUCTIVE SOCIETY LIMITED.

STATEMENT SHOWING CONDITION AND PROGRESS OF THE SOCIETY SINCE ITS COMMENCEMENT.

DATE.	Share Redemp- tion Fund.	Share Capital.	LOAN CAPITAL.				Profits.	Losses.	SALES.		
			Co-operative Societies.	Friendly Societies.	Individuals.	Total.			Co-operative.	Merchants.	Total.
Half-year ending July 11, 1874.....	£	£	£	£	£	£	£	£	£	£	£
" " Jan. 9, 1875.....	..	6195	..	50	341	391	..	..	..	..	..
" " July 9, ".....	..	6195	2330	868	1234	4432	456	1896	1581	16	1597
" " Jan. 8, 1876.....	..	6495	2388	920	1273	4581	..	43	5919	167	6087
" " July 8, ".....	..	6495	2423	960	1372	4756	..	..	5585	659	6244
" " Jan. 6, 1877.....	..	6600	2972	1091	1461	5525	157	..	4338	2827	7165
" " July 7, ".....	..	6600	2946	1297	1825	6067	..	496	2677	3136	5414
" " Jan. 5, 1878.....	..	6600	2818	1382	1723	6051	..	544	3094	4457	7551
" " June 29, ".....	..	*2640	2818	1295	1368	5482	..	11451	2690	3583	6273
4½ Months ending Nov. 16, ".....	..	2640	2856	1268	1269	5395	..	966	1329	3958	5287
IN LIQUIDATION.											
1½ Months ending Jan. 4, 1879.....	..	2640	2876	1277	1278	5432	20	..	473	939	1413
3 " " April 5, ".....	..	2640	2912	1293	1294	5499	25	..	1531	1271	2803
3 " " July 5, ".....	..	2640	2948	1309	1310	5568	38	..	1546	709	2256
3 " " Oct. 4, ".....	..	2640	2985	1325	1326	5637	55	..	1639	172	1812
3 " " Jan. 3, 1880.....	..	2640	3022	1341	1345	5708	92	..	3988	210	4198
3 " " April 3, ".....	..	2640	3060	1357	1382	5799	93	..	3276	115	3391
3 " " July 3, ".....	..	2640	5406	1373	1511	8290	95	..	3707	204	3911
3 " " Oct. 2, ".....	..	2640	5449	1411	1529	8389	81	..	3169	138	3307
3 " " ".....	..	2640	5486	1429	1575	8490	21	..	4266	175	4411

3	"	"	July 2, " 1883	..	2640	5469	1631	8665	19	..	2249	124	2373
3	"	"	Oct. 1, " 1882	..	2640	5609	1652	8745	8	..	3893	332	4225
3	"	"	Jan. 7, " 1882	..	2640	5651	1723	8876	12	..	3719	592	4311
3	"	"	April 8, " 1882	..	2640	5692	1765	8978	12	..	2417	133	2550
3	"	"	July 8, " 1882	..	2640	6742	1842	10145	9	..	3225	203	3428
3	"	"	Oct. 8, " 1882	..	2640	6797	1858	10235	10	..	5038	754	5792
3	"	"	Jan. 7, " 1883	..	2640	6832	1889	10321	12	..	3506	1121	4627
3	"	"	April 6, " 1883	..	2640	6876	1913	10409	5	..	3012	570	3582
3	"	"	July 7, " 1883	..	2640	6921	1861	10421	13	..	2895	1799	4694
3	"	"	Oct. 6, " 1883	..	2640	6966	1850	10478	50	..	4275	1506	5781
3	"	"	Jan. 5, 1884	..	2640	7011	1876	10567	38	..	4546	786	5332
3	"	"	April 5, " 1884	..	2640	7057	1897	10666	35	..	4146	190	4336
3	"	"	July 5, " 1884	..	2640	7103	1963	10788	32	..	4352	319	4671
3	"	"	Oct. 4, " 1884	..	2640	7150	1986	10881	29	..	6253	356	6009
3	"	"	Jan. 3, 1885	..	2640	7198	2011	10975	82	..	5800	317	6117
3	"	"	April 4, " 1885	..	2640	7246	2041	11076	26	..	4919	150	5069
3	"	"	July 4, " 1885	..	2640	7296	2066	11173	57	..	6350	287	6037
3	"	"	Oct. 3, " 1885	..	2640	8346	2090	12270	48	..	6975	741	7716
3	"	"	Jan. 2, 1886	48	2640	8409	2115	12401	73	..	4936	379	5315
3	"	"	April 3, " 1886	121	2640	8460	2241	12602	34	..	4680	164	4844
3	"	"	July 3, " 1886	155	2640	8511	2269	12704	20	..	4168	856	5024
3	"	"	Oct. 2, " 1886	175	2640	8561	2297	12809	51	..	8965	434	8799
3	"	"	Jan. 1, 1887	226	2640	8617	2376	12961	74	..	5935	719	6654
3	"	"	April 2, " 1887	300	2640	8672	2330	12997	62	..	3800	462	4262
3	"	"	July 2, " 1887	361	2640	8726	2359	13105	31	..	4319	701	5020
3	"	"	Oct. 1, " 1887	392	2640	8780	2388	13214	11	..	5465	1154	6619
3	"	"	Jan. 7, 1888	404	2640	8835	2418	13324	2	..	5526	881	6410
3	"	"	April 7, " 1888	404	2640	8892	2488	13477	..	198	3336	908	4244
3	"	"	July 9, " 1888	207	2640	9949	2579	13651	..	64	1741	1163	2904
3	"	"	Oct. 6, " 1888	143	2640	9008	2767	13924	..	33	6873	1565	8138
3	"	"	Jan. 5, 1889	104	2640	9068	2911	14155	..	83	5239	1178	6417
3	"	"	April 6, " 1889	20	2640	9128	2946	14277	..	12	4282	799	5081
3	"	"	July 6, " 1889	8	2640	9190	2948	14368	..	150	3114	1913	5027
3	"	"	Oct. 5, " 1889	..	2640	9252	3014	14523	..	40	7041	2136	9177
3	"	"	Jan. 4, 1890	..	2640	9314	3178	14777	..	145	5410	1168	6578
3	"	"	April 5, " 1890	..	2640	9377	3217	14907	..	263	4118	867	4985
3	"	"	July 5, " 1890	..	2640	9436	3257	15039	..	210	3241	1161	4402
3	"	"	Oct. 4, " 1890	..	2640	9500	3296	15171	..	46	5069	2059	7128
3	"	"	Jan. 3, 1891	..	2640	9564	3386	15355	..	64	5333	985	6318
3	"	"	April 4, " 1891	..	2640	9621	3426	15490	..	293	3833	623	4458
3	"	"	July 4, " 1891	..	2640	9695	3408	15568	..	45	4429	1261	5690
3	"	"	Oct. 3, " 1891	..	2640	9762	3450	15708	..	..	6729	1119	7848
3	"	"	Jan. 2, 1892	..	2640	9830	3356	15713	..	..	5714	840	6554
3	"	"	April 2, " 1892	..	2640	9899	3398	15855	..	..	4885	428	5313
3	"	"	July 2, " 1892	..	2640	9968	3339	15897	..	..	3823	622	4445

* Share Capital reduced from £1 to 8s. per share.

† Including bad debts of £553, and formation expenses of £269.

THE
SCOTTISH
CO-OPERATIVE WHOLESALE SOCIETY
LIMITED.

PLATES, ADVERTISEMENTS, STATISTICS, &c.,

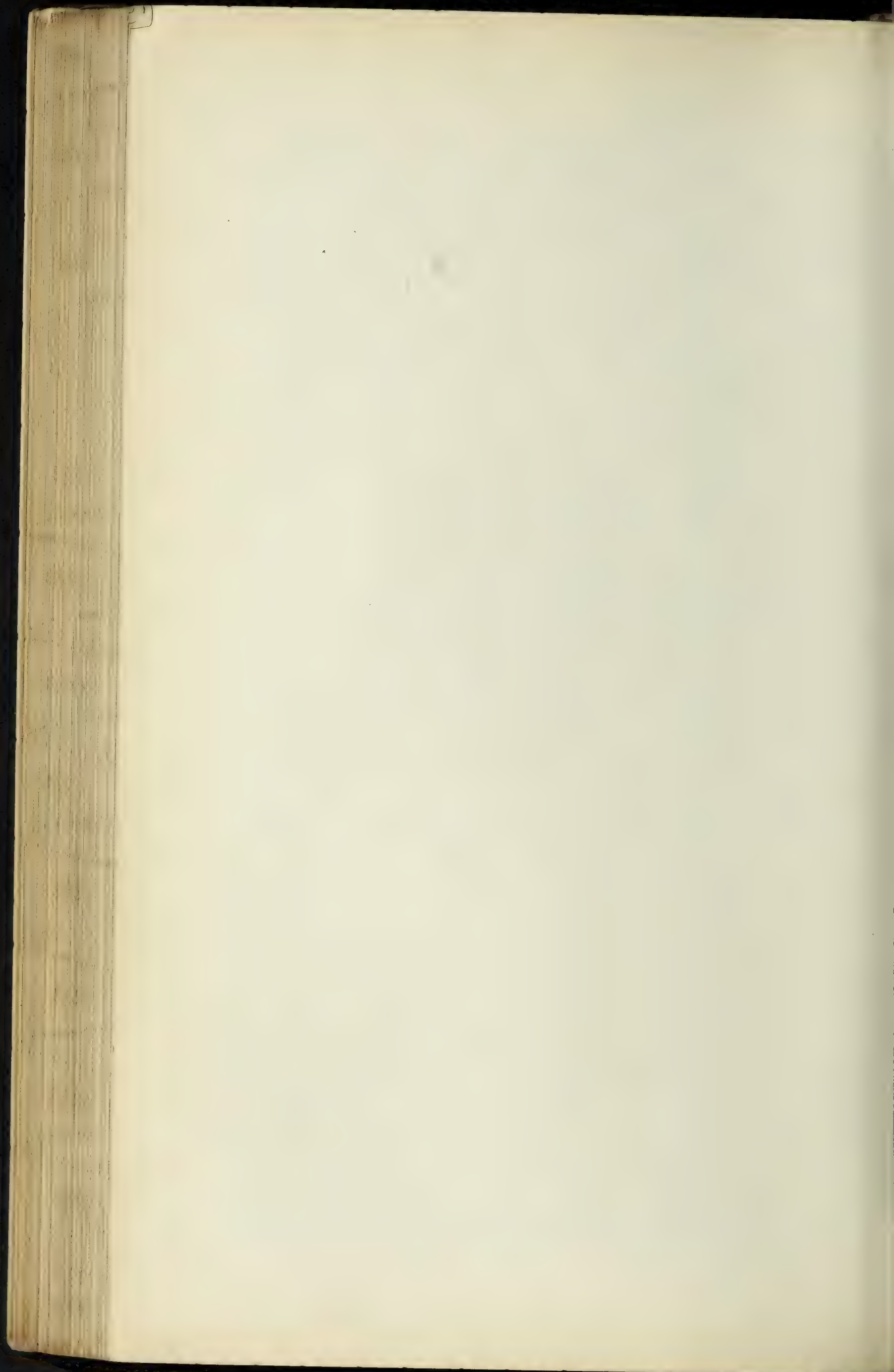
PAGES 116 TO 170.

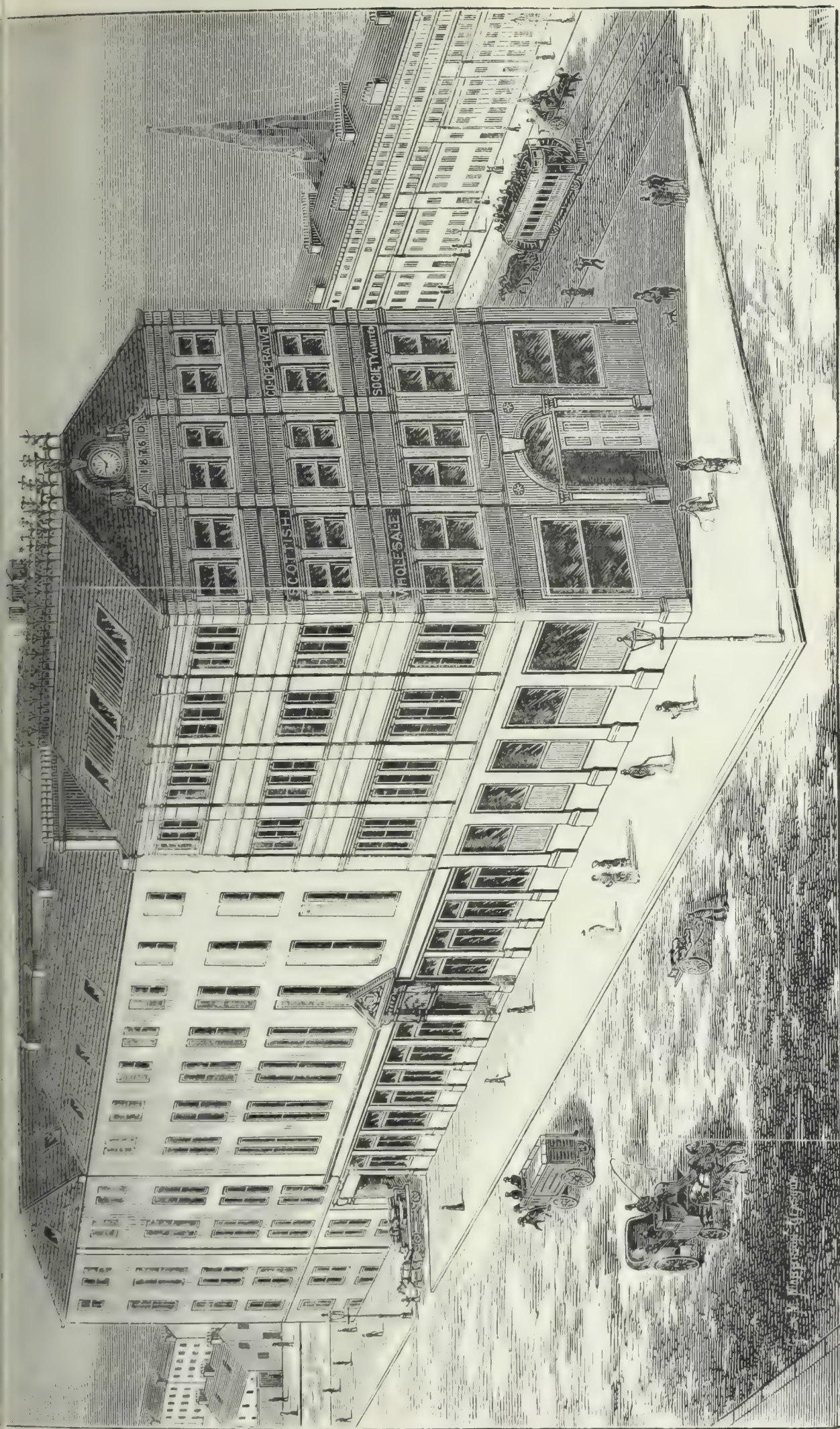
Twenty-four Years' Wholesale Distribution in Scotland.

Scottish
Co-operative Wholesale Society Ltd.

YEARS.	CAPITAL.	SALES.	PROFITS.	YEARS.
	£	£	£	
1868, 13 weeks	1,795	9,697	48	13 weeks, 1868
1869, 52 „	5,175	81,094	1,304	52 „ 1869
1870, 50 „	12,543	105,249	2,419	50 „ 1870
1871, 52 „	18,009	162,658	4,131	52 „ 1871
1872, 52 „	30,931	262,530	5,435	52 „ 1872
1873, 52 „	50,433	384,489	7,446	52 „ 1873
1874, 52 „	48,982	409,947	7,553	52 „ 1874
1875, 52 „	56,751	430,169	8,233	52 „ 1875
1876, 51 „	67,219	457,529	8,836	51 „ 1876
1877, 52 „	72,568	589,221	10,925	52 „ 1877
1878, 52 „	83,174	600,590	11,969	52 „ 1878
1879, 52 „	93,077	630,097	14,989	52 „ 1879
1880, 52 „	110,179	845,221	21,685	52 „ 1880
1881, 54 „	135,713	986,646	23,981	54 „ 1881
1882, 52 „	169,429	1,100,588	23,220	52 „ 1882
1883, 52 „	195,396	1,253,154	28,366	52 „ 1883
1884, 52 „	244,186	1,300,331	29,435	52 „ 1884
1885, 52 „	288,946	1,438,220	39,641	52 „ 1885
1886, 60 „	333,653	1,857,152	50,398	60 „ 1886
1887, 53 „	367,309	1,810,015	47,278	53 „ 1887
1888, 52 „	409,668	1,963,853	53,538	52 „ 1888
1889, 52 „	480,622	2,273,782	61,756	52 „ 1889
1890, 52 „	575,322	2,475,601	76,545	52 „ 1890
1891, 52 „	671,108	2,828,036	89,090	52 „ 1891
1892, 39 „	762,215	2,253,769	66,712	39 „ 1892
TOTALS.	762,215	26,509,650	694,937	TOTALS.

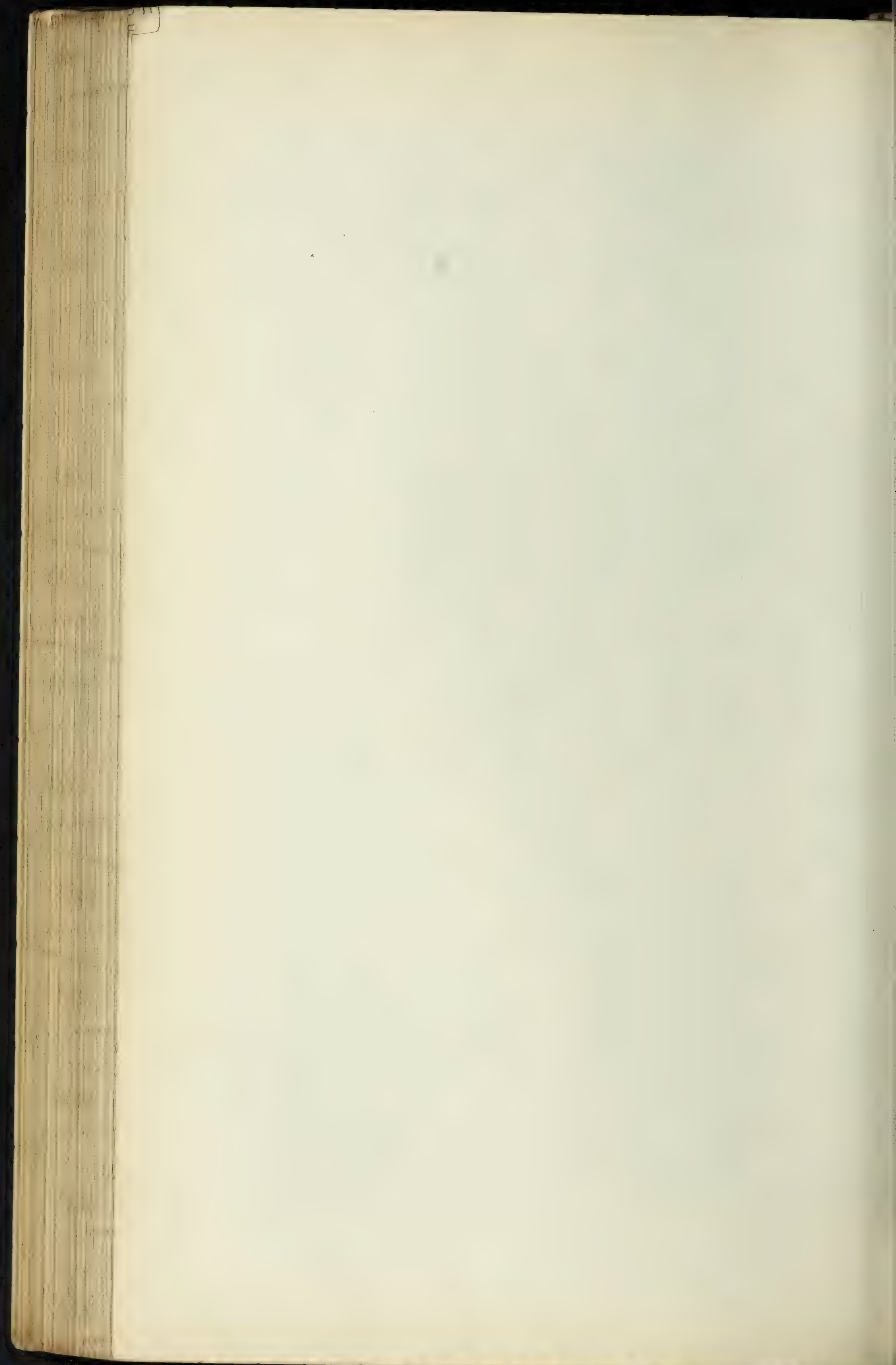
Commenced September, 1868.





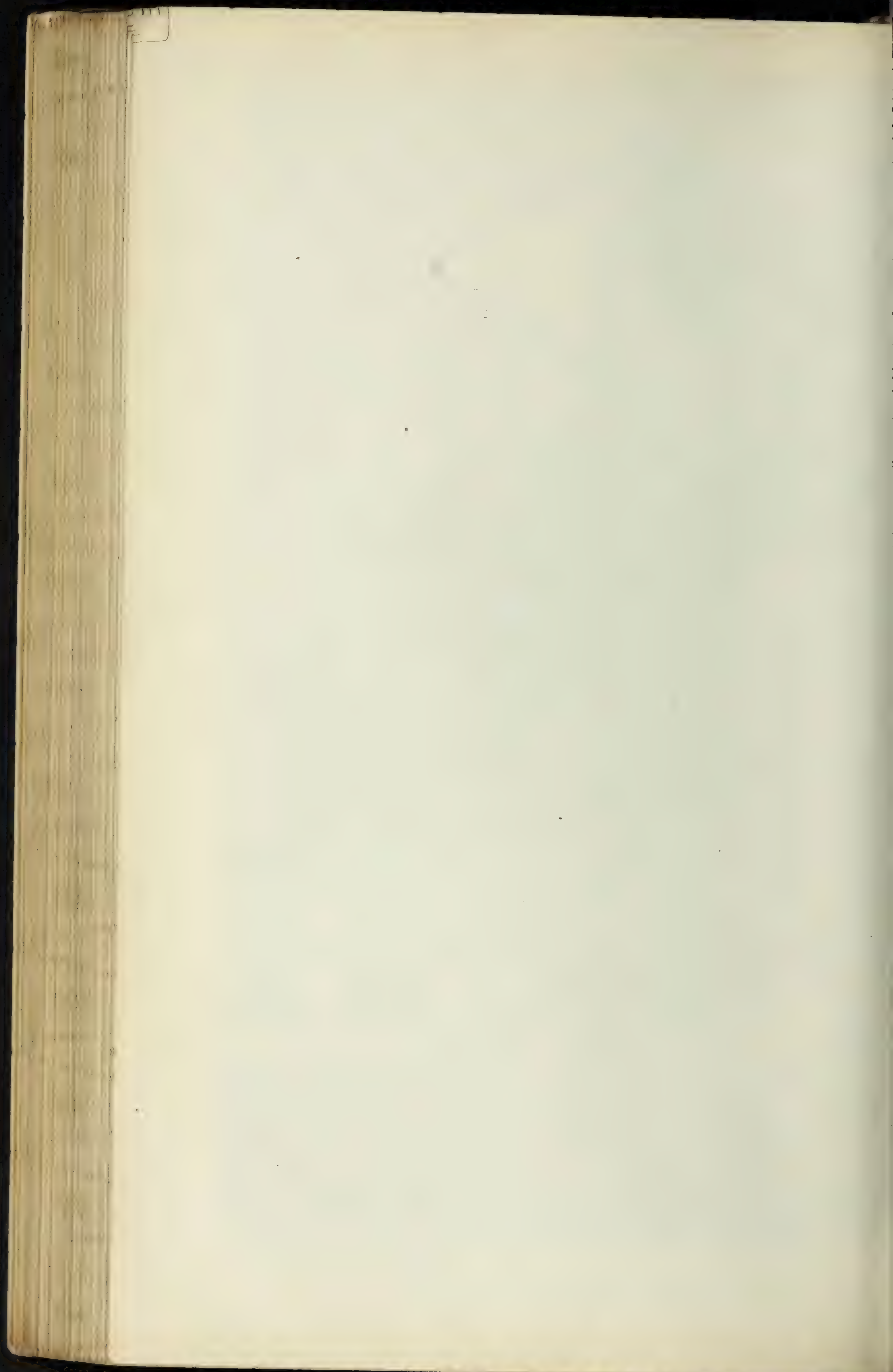
REGISTERED OFFICE, GROCERY AND PROVISION WAREHOUSES, 119, PAISLEY ROAD, GLASGOW.

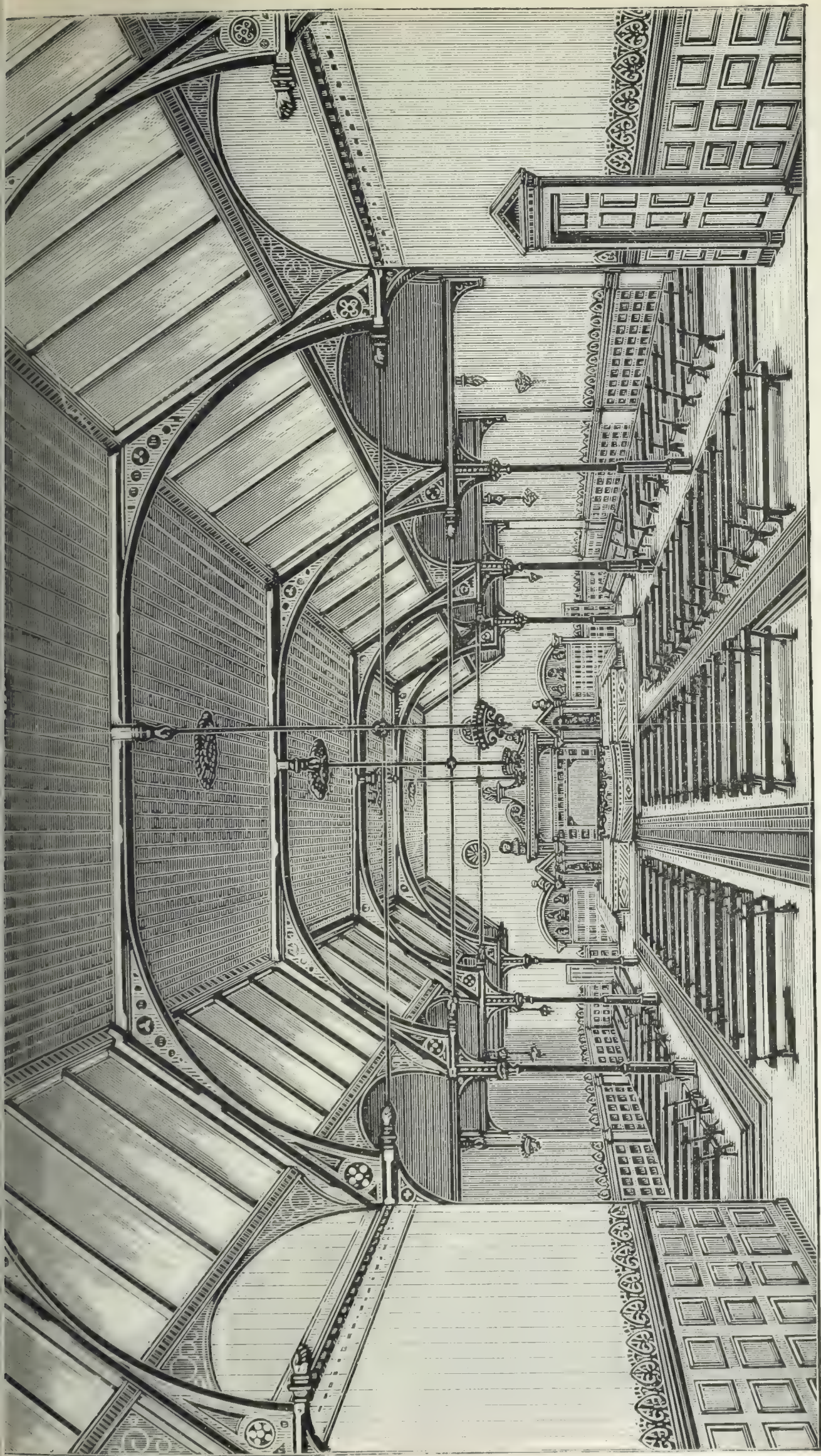
See pages 128, 130.



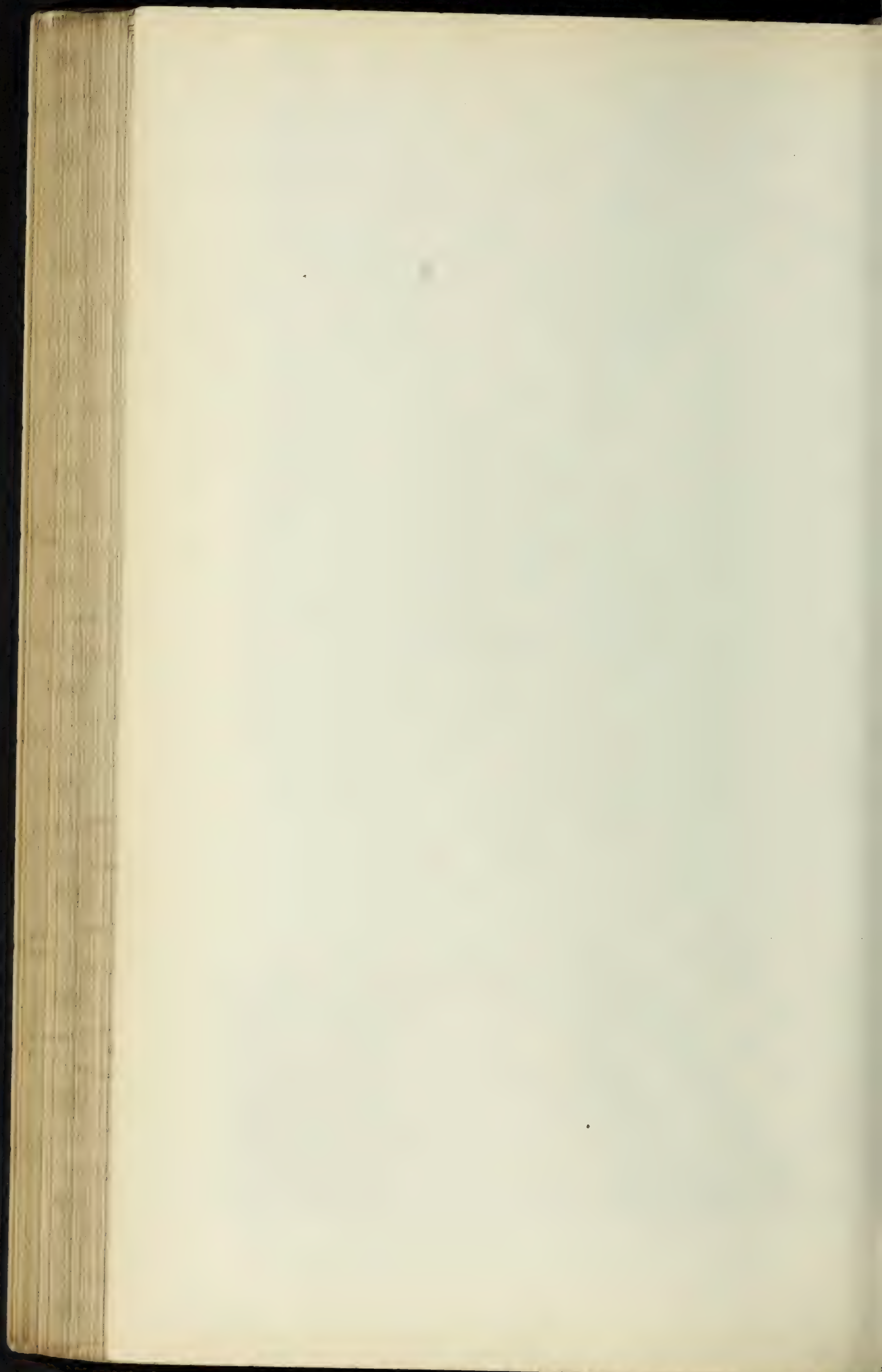


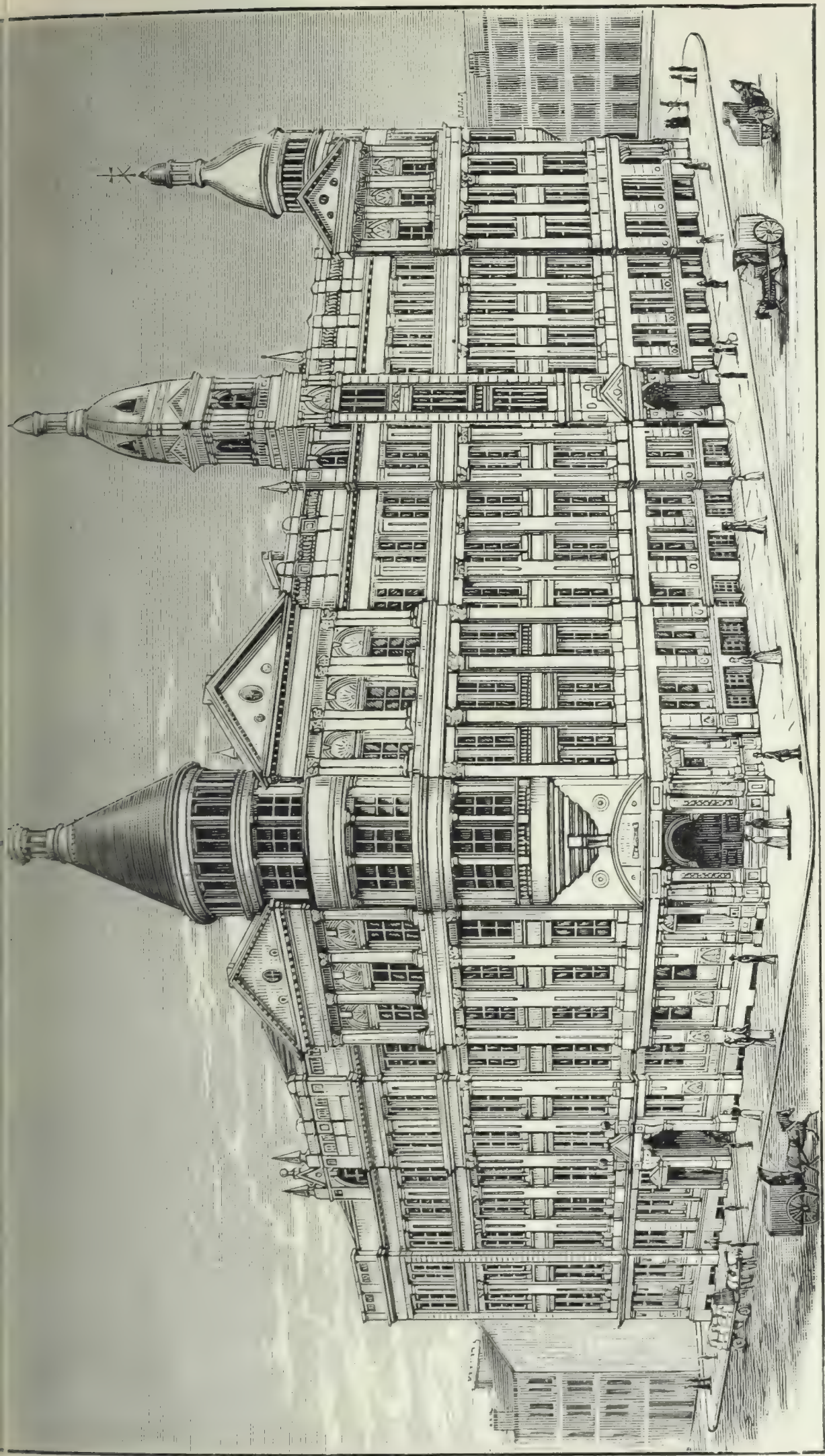
GLASGOW GROCERY AND PROVISION WAREHOUSE AND HALL,
CLARENCE STREET.—See page 130.





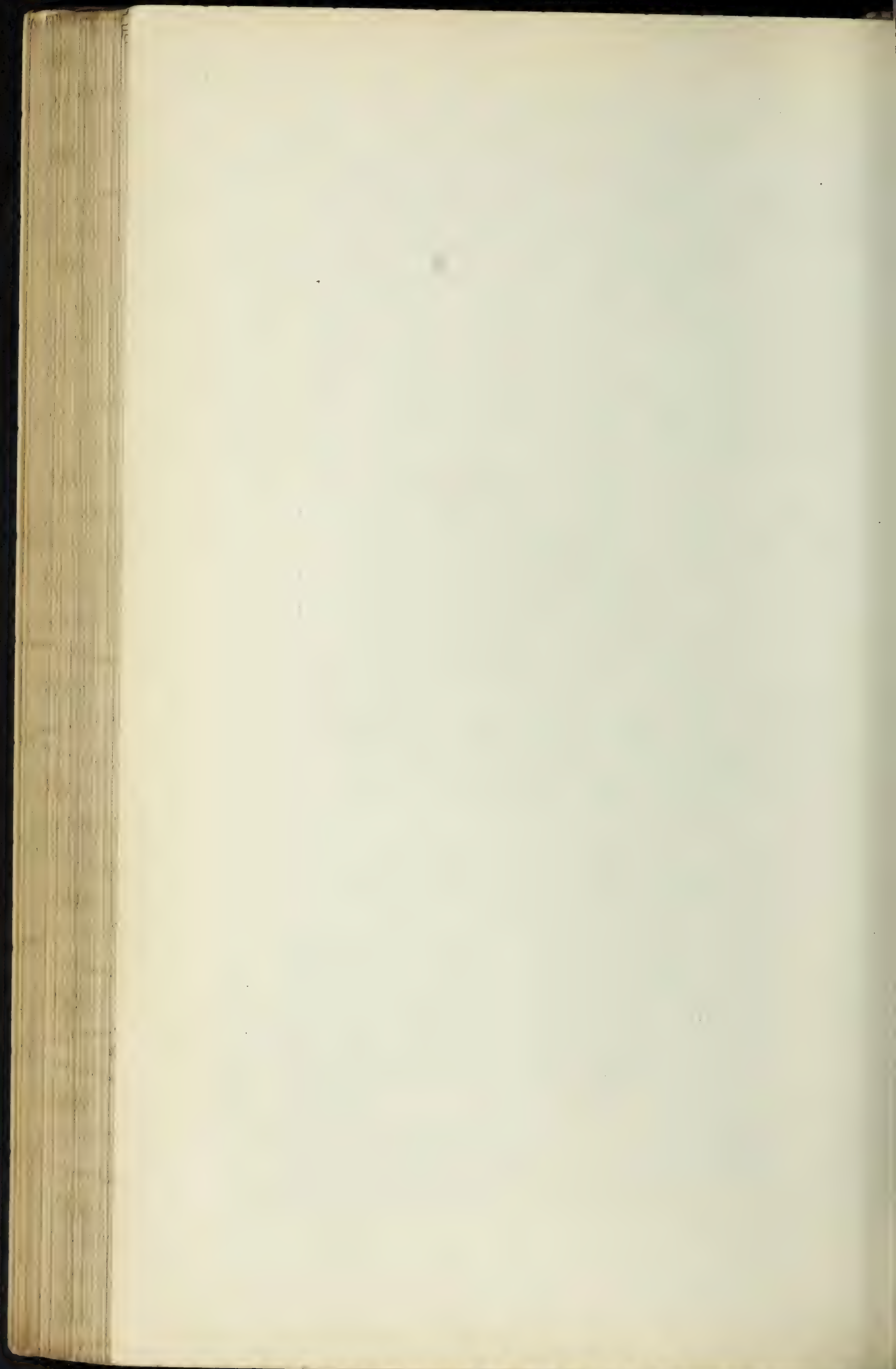
INTERIOR OF CO-OPERATIVE HALL, CLARENCE STREET, GLASGOW.





GLASGOW DRAPERY, BOOT AND SHOE, AND FURNITURE WAREHOUSES, DUNDAS STREET.

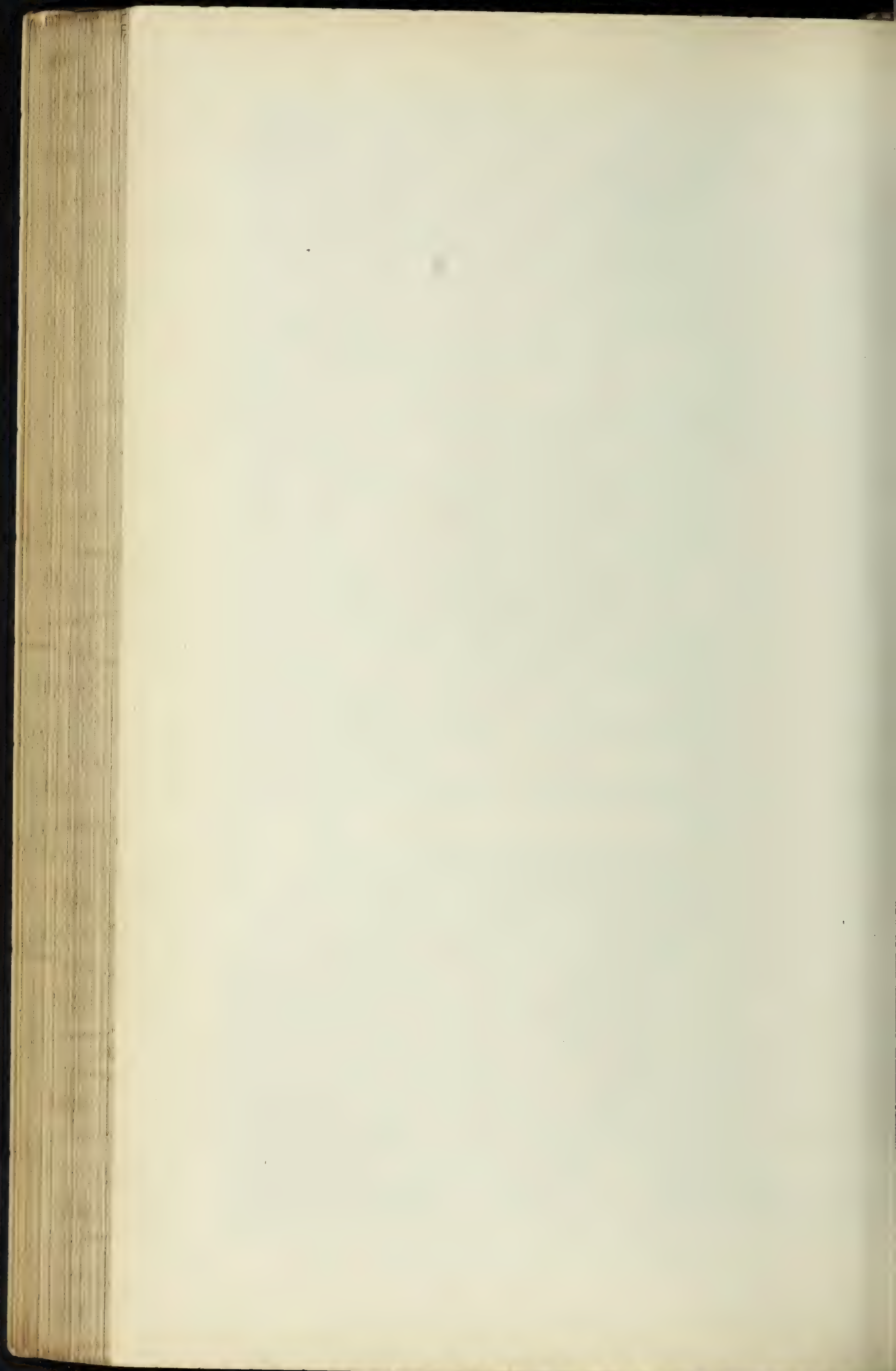
See pages 136 to 141.





LEITH GROCERY AND PROVISION WAREHOUSE, LINKS PLACE.

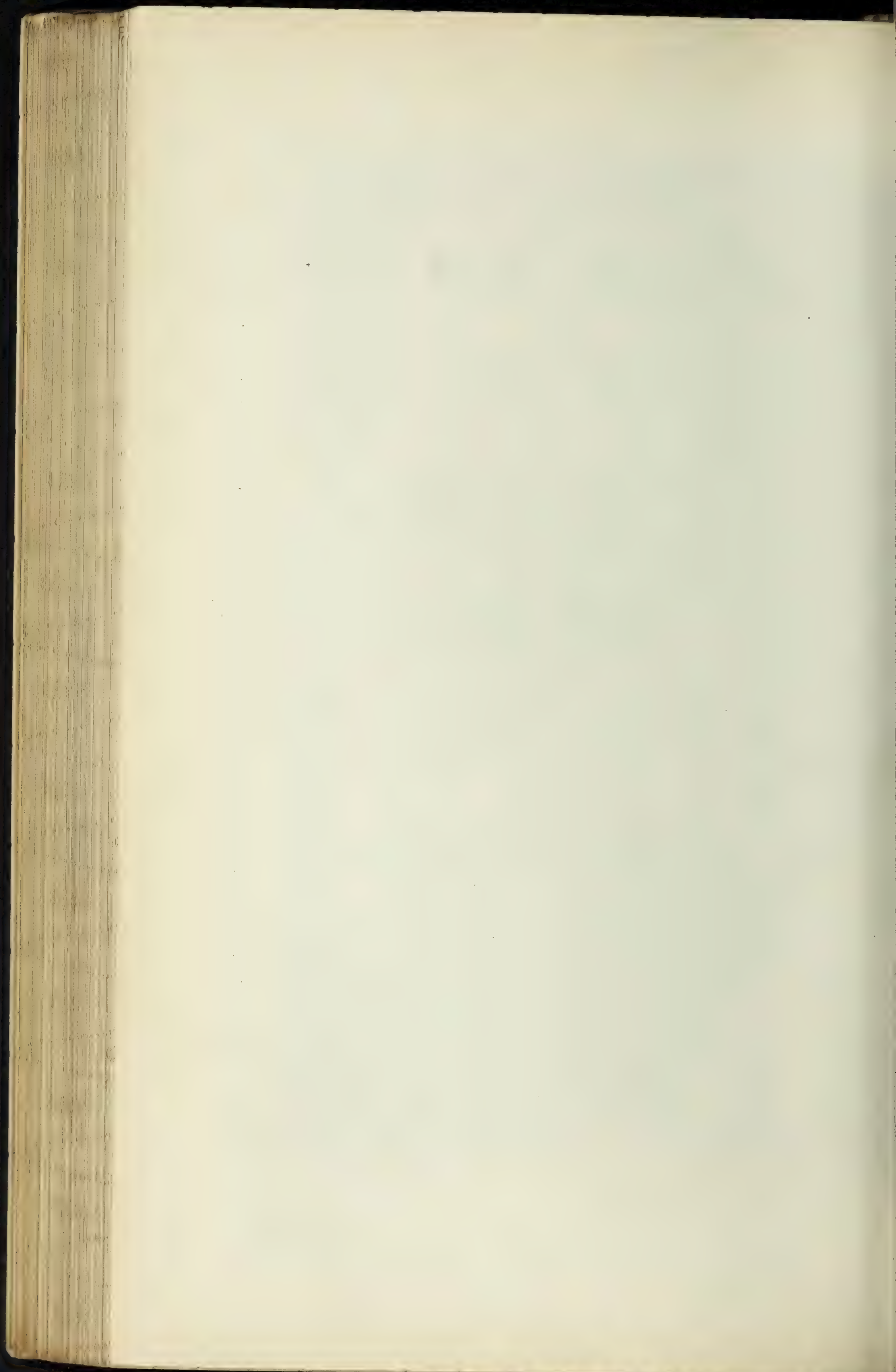
See page 131.

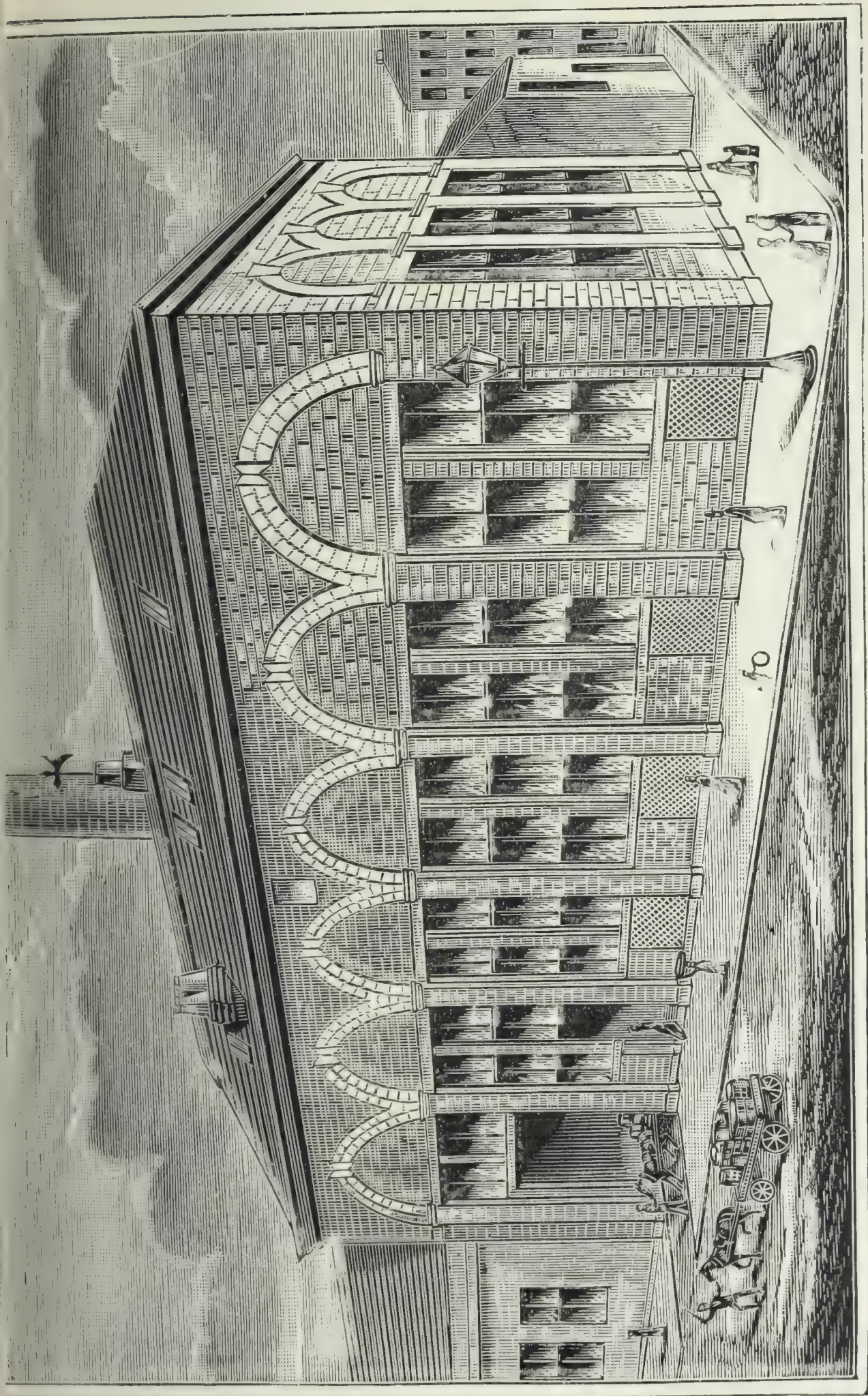




KILMARNOCK GROCERY AND PROVISION WAREHOUSE, GRANGE PLACE.

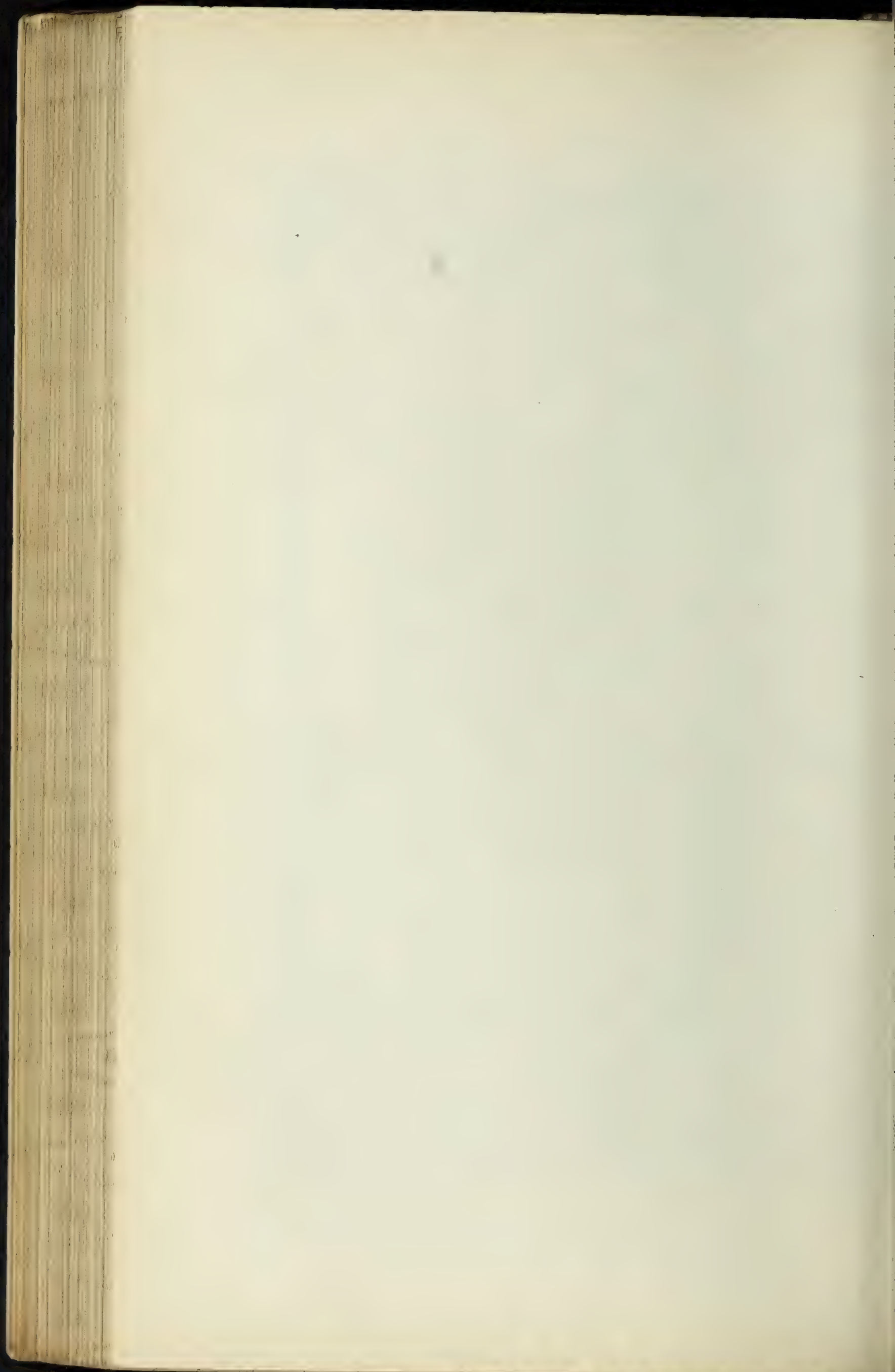
See page 132.

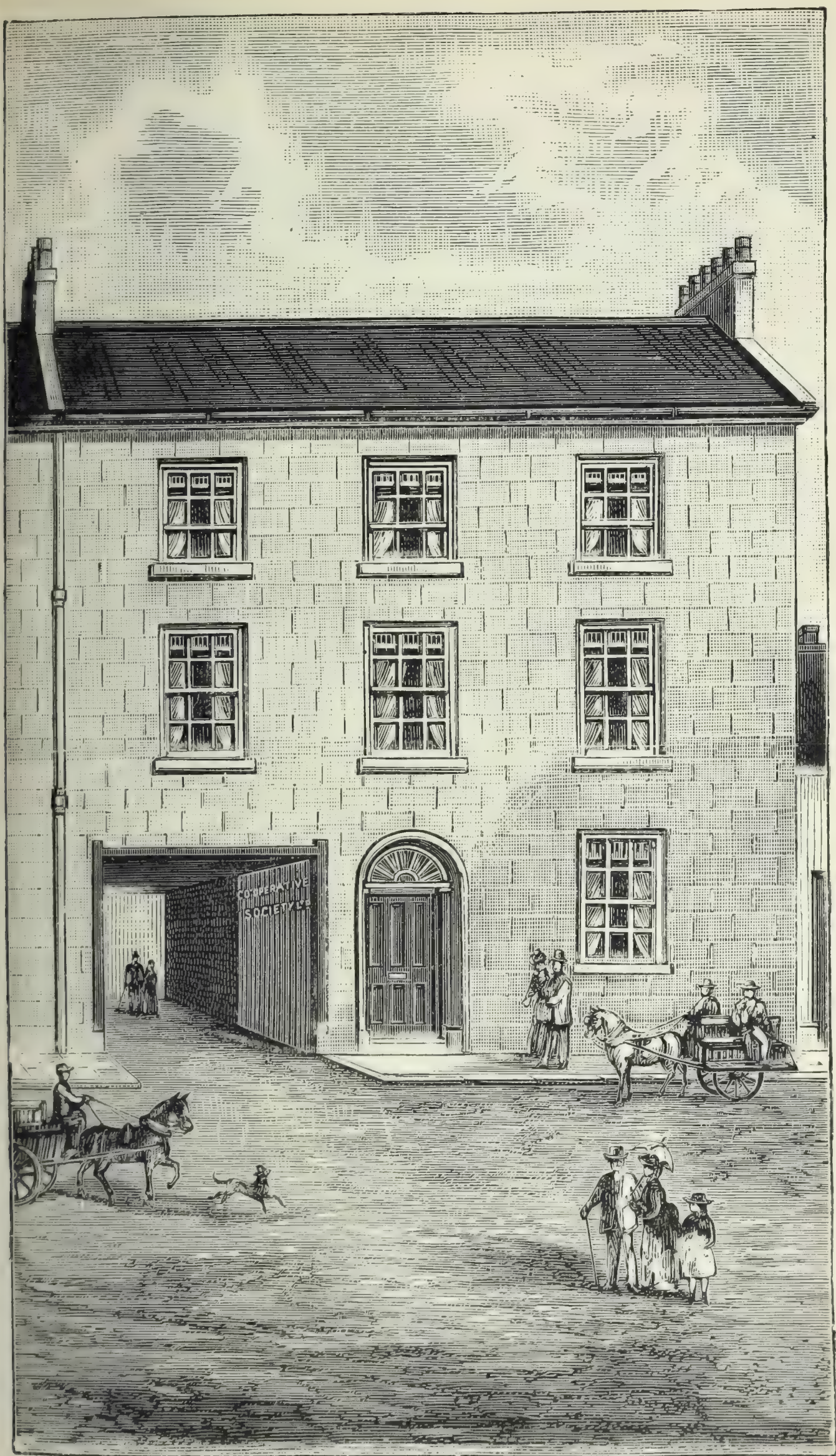




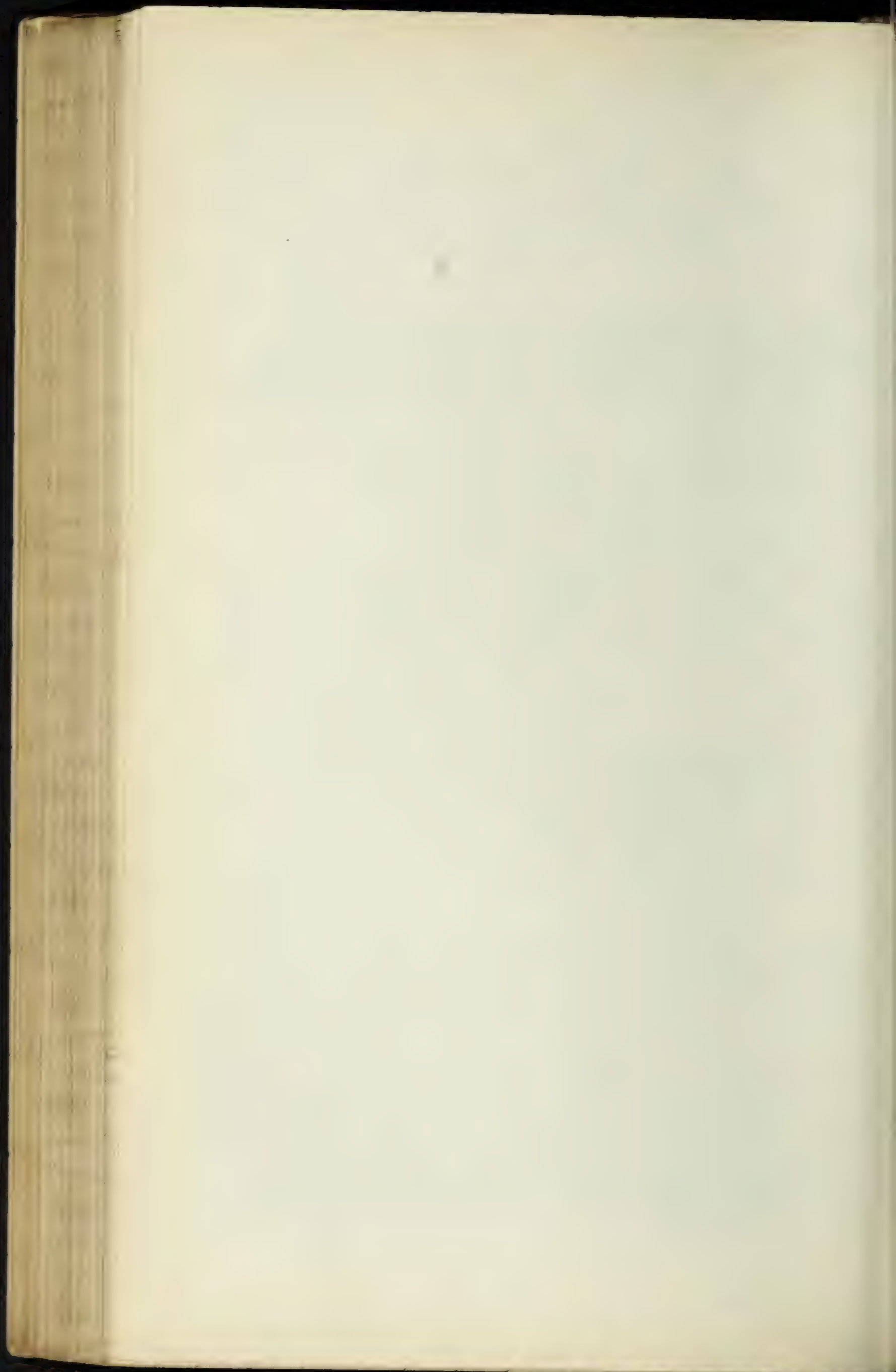
DUNDEE GROCERY AND PROVISION WAREHOUSE, TRADES LANE.

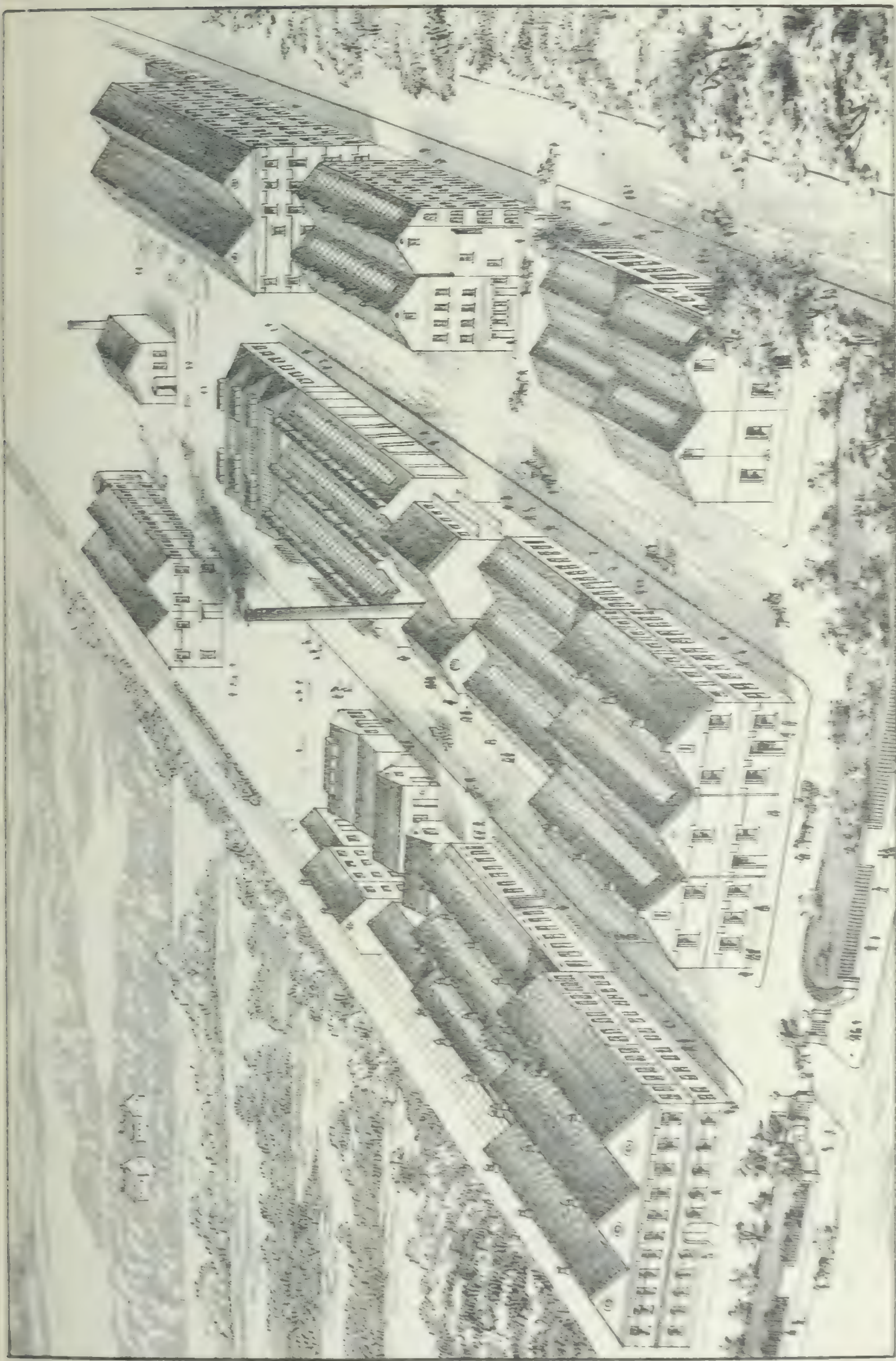
See page 134.



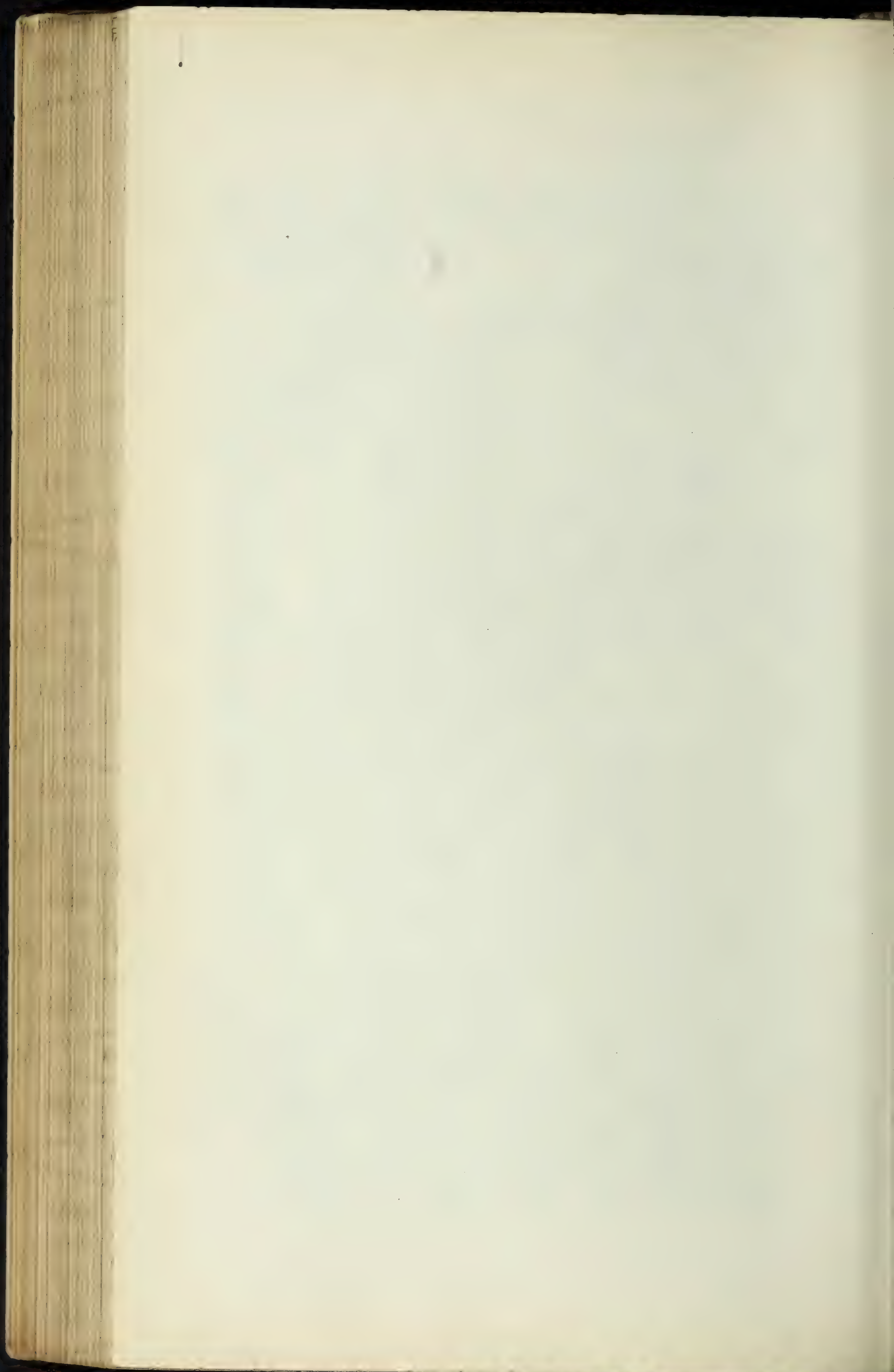


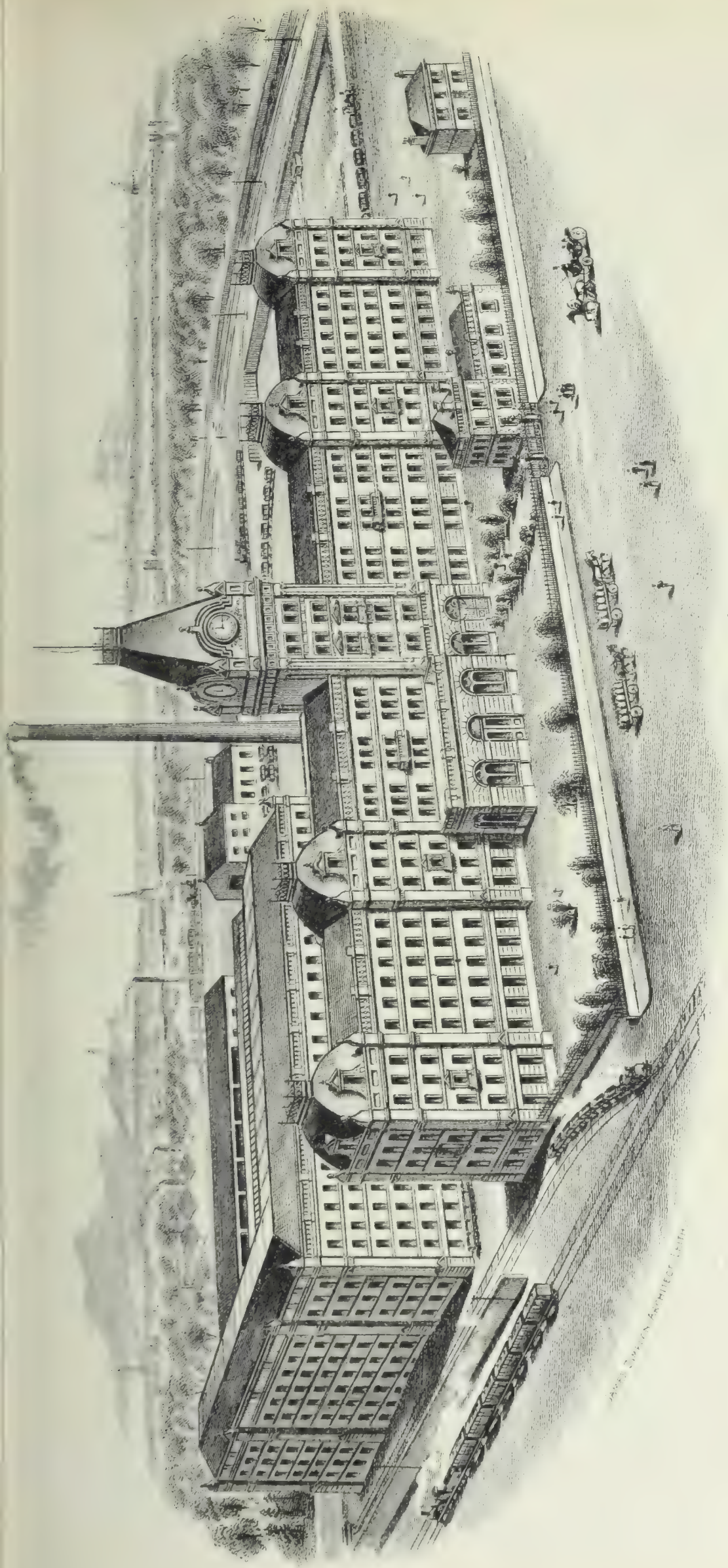
ENNISKILLEN DEPOT.—BUTTER, EGGS, AND BACON.





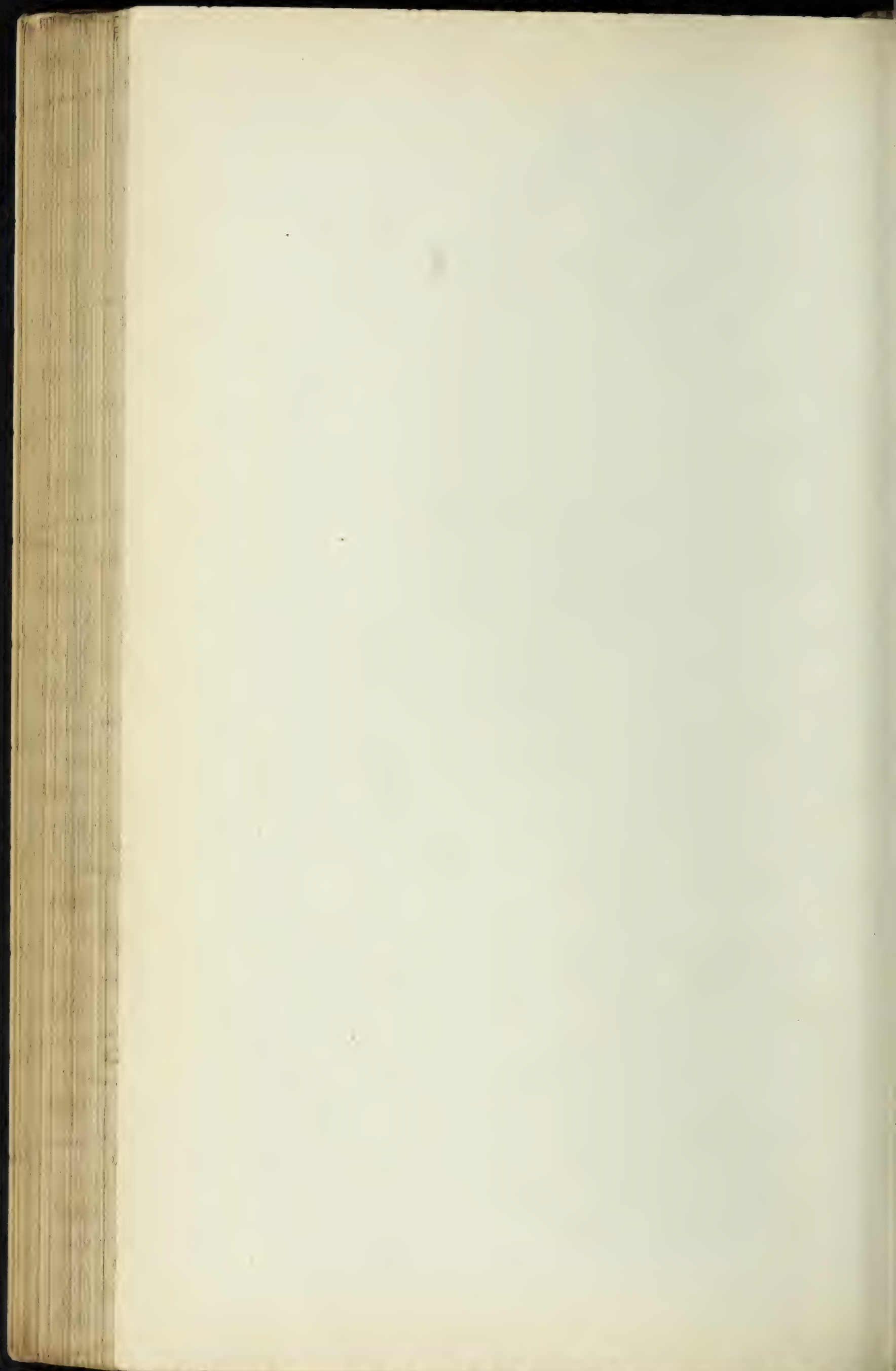
PRODUCTIVE WORKS · SHIELDHALL, GOVAN, NEAR GLASGOW





· CHANCELLOT · ROLLER · FLOUR · MILLS ·, EDINBURGH ·, 1891 ·

· THE · SCOTTISH · CO-OPERATIVE · WHOLESALE · SOCIETY · L^D ·



INTRODUCTION.

TO THE MEMBERS :

WITH our best wishes, we have pleasure in sending you the "Annual" for 1893. That this volume is becoming year by year increasingly welcome to members of societies is well known. It has established for itself something like a place in the literature of the country, and is welcomed and valued by the ever-increasing number of men of all ranks who are taking a deep interest in the vital social questions of the day. The value of an authoritative reference regarding the work done in this connection by co-operation is evident, and to meet this object is very much the purpose for which this volume is issued, while the articles on topics which are at the present time exercising the minds of all thinking men give it an additional interest and value.

Both in the record of the progress made during the past year and in the importance and value of the special papers, we think the volume will bear favourable comparison with those previously issued, and that this interest will be deepened and widened by its perusal is the desire of the compilers.

The past year's history of the Wholesale is one of progress. Not only has trade in all our Distributive Departments increased during the year, but further extensions have been made in production, and all along the line of the industries in which we are engaged successes have been achieved. The bare record of these industries is a long one, and at our productive works at Shieldhall we are now manufacturing boots and shoes, with the

currying of leather; printing, with the allied industries of lithographing and paper bag making; clothing in the following branches men's and boys' ready-mades, shirts, mantles, hosiery, and duck and serge clothing; preserve making, with making of confections; cabinet making, brush making, manufacture of coffee essences, packing of semolina, and tobacco manufacturing. We also construct our own buildings, and at the present moment are erecting by our own workpeople large warehouses in Paterson Street and Crookston Street, Glasgow, and the large flour mill at Chancelot, Leith. We have also organised a mechanical department, and now do all such work in connection with those buildings and the works at Shieldhall. It may appear to some that this statement is only a repetition of what has already been made in former "Annuals," but for our part we think that by continued reiteration we can impress our members with the proportions which the business has attained to, and so raise in them that feeling of exultation with which they are entitled to be possessed through their connection with such an organisation, built up by the combined effort of each individual and capable of being much further increased and strengthened by the sustained efforts of all concerned.

For details of the progress of the business in all departments we draw your attention to the numerous statistical statements in the following pages, and especially to the new statement which appears in pages 160 to 170 of the volume. We refrain from entering into details of these statistics here, believing that they will reward a careful examination and study. With fond hopes that this work will sustain and strengthen the interest of all engaged in the co-operative movement, we place it in your hands.

SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

Enrolled 20th April, 1868, under the provisions of the Industrial and Provident Societies Act, 20th August, 1867, 30 and 31 Vict., cap. 117, sec. 4.

Business Commenced 8th September, 1868.

REGISTERED OFFICE, GROCERY AND PROVISION WAREHOUSE:

119, PAISLEY ROAD, GLASGOW.

DRAPERY WAREHOUSE:

DUNDAS AND ST. JAMES' STREETS, GLASGOW.

BOOT AND SHOE AND FURNITURE WAREHOUSE:

DUNDAS STREET, GLASGOW.

BOOT AND SHOE FACTORY, CLOTHING FACTORY, CABINET WORK-

SHOP, PRINTING WORKSHOP, PRESERVE AND CONFECTION

WORKS, MANTLE FACTORY, COFFEE ESSENCE WORKS,

AND TOBACCO FACTORY:

SHIELDHALL, near GOVAN, GLASGOW.

Scottish Co-operative Wholesale Society Limited.

BRANCHES:

LINKS PLACE, LEITH. GRANGE PLACE, KILMARNOCK.

TRADES LANE, DUNDEE.

HENRY STREET, ENNISKILLEN, IRELAND.

TEA AND COFFEE DEPARTMENT:

Hooper Square, Leman Street, Whitechapel, London.

BANKERS:

THE UNION BANK OF SCOTLAND LIMITED.

HEAD OFFICES:

GLASGOW:

INGRAM STREET.

LONDON:

62, CORNHILL, E.C.

EDINBURGH:

GEORGE STREET.

MANAGER:

CHARLES GAIRDNER.

MANAGER:

JOHN A. FRADGLEY.

MANAGER:

HENRY HAY NORIE.

General Committee.

PRESIDENT :

Mr. WILLIAM MAXWELL, 36, Woodburn Terrace, Morningside, Edinburgh.

SECRETARY :

Mr. ANDREW MILLER, Moss Road, Tillicoultry.

DIRECTORS :

Mr. ISAAC MACDONALD 7, Knoxland Street, Dumbarton.
 Mr. DANIEL THOMSON 67, Priory Lane, Dunfermline.
 Mr. JOHN STEVENSON 2, Park Lane, Kilmarnock.
 Mr. T. C. Mc.NAB 25, Dalmeny Street, Leith.
 Mr. JOHN ARTHUR 139, George Street, Paisley.
 Mr. HENRY MURPHY Bloomgate, Lanark.
 Mr. JOHN PEARSON Ludgate Place, Alloa.
 Mr. JOHN ADAMS 12, Anderson Street, Kinning Park.
 Mr. PETER GLASSE Myrtle Street, Glasgow.
 Mr. THOMAS LITTLE 3, Hall Street, Galashiels.

SUB-COMMITTEES.

FINANCE :	{	Mr. WILLIAM MAXWELL, Mr. JOHN STEVENSON. Mr. ANDREW MILLER (Convener).
BUILDING :	{	Mr. ISAAC MACDONALD. Mr. HENRY MURPHY. Mr. ANDREW MILLER. Mr. THOMAS LITTLE. Mr. WILLIAM MAXWELL (Convener).
PRODUCTIVE :	{	Mr. ISAAC MACDONALD. Mr. JOHN ADAMS. Mr. JOHN PEARSON (Convener).
DRAPERY :	{	Mr. HENRY MURPHY. Mr. PETER GLASSE. Mr. T. C. Mc.NAB (Convener).
GROCERY :	{	Mr. THOMAS LITTLE. Mr. DANIEL THOMSON. Mr. JOHN ARTHUR (Convener).

AUDITORS :

Mr. JOHN ALEXANDER, Paisley. | Mr. JOHN MILLEN, Rutherglen.
 Mr. JAMES INGLIS, Paisley.

Officers of the Society.

MANAGER :

Mr. JAMES MARSHALL, Glasgow.

ACCOUNTANT :

Mr. ROBERT MACINTOSH, Glasgow.

CASHIER :

Mr. ALLAN GRAY, Glasgow.

BUYERS, SALESMEN, &c.

GROCERY AND PROVISION DEPARTMENTS.

Mr. E. ROSSGlasgow.
 Mr. J. MACDONALDGlasgow.
 Mr. R. REYBURNGlasgow.
 Mr. JAS. CALDWELL (Carting Superintendent)Glasgow.
 Mr. W. F. STEWARTLeith.
 Mr. PETER ROBERTSONLeith.
 Mr. W. LAIRDKilmarnock.
 Mr. DAVID CALDWELLKilmarnock.
 Mr. J. BARROWMANDundee.
 Mr. WILLIAM WHYTEEnniskillen.
 Mr. CHARLES FIELDING (Tea)London.
 Mr. JOHN M'INTYRE (Potatoes)Glasgow.
 Mr. JOHN WHITE (Potatoes)Leith.
 Mr. N. ANDERSON (Traveller, Grocery Department)Glasgow.
 Mr. GEORGE BLACKWOOD (Traveller, Grocery Department) ..Glasgow.
 Mr. WM. DUNCAN (Cattle Buyer).....Glasgow.
 Mr. JAMES MONTGOMERY (Farm Manager)..Carbrook Mains, Larbert.

Mr. DAVID GARDINER (Drapery Department)Glasgow.
 Mr. ALEX. Mc.FARLANE (Tailoring Factory)Glasgow.
 Mr. ALBERT JOHNSON (Boot and Shoe Factory)Glasgow.
 Mr. WILLIAM MILLER (Furniture Department)Glasgow.
 Mr. DAVID CAMPBELL (Printing)Glasgow.
 Mr. HENRY HEGGERTY (Preserve Works)Glasgow.
 Mr. THOMAS HARKNESS (Tobacco Factory)Glasgow.

Business Arrangements.

REGISTERED OFFICE :
119, PAISLEY ROAD, GLASGOW.

BRANCHES :

LINKS PLACE, LEITH ; GRANGE PLACE, KILMARNOCK ;
TRADES LANE, DUNDEE ;
HENRY STREET, ENNISKILLEN, IRELAND ;
HOOPER SQUARE, LEMAN STREET, WHITECHAPEL, LONDON.

BUSINESS ARRANGEMENTS.

SOCIETIES or Companies Registered (to *which our trade is strictly confined*) desirous of opening an account with this Society, will please forward a copy of the registered Rules and latest issued balance sheet. If newly started, a statement showing the number of members ; value of shares ; amount subscribed for and paid up ; weekly turnover expected ; also, if credit is allowed, the amount per member in proportion to the capital paid up. The information forwarded will be carefully considered, and, if found satisfactory, goods will be supplied on the usual business terms.

CASH PAYMENTS.

BESIDES the usual invoice sent with each consignment of goods, a weekly statement of accounts (see page 124) is sent to each society, so that there may be no delay in remitting the amount due for the month, the limit of credit allowed by this Society. Interest at the rate of 5 per cent per annum is charged on all overdue accounts, and by a resolution adopted at a general meeting of the members, the committee of management are instructed and empowered to examine the books of defaulting societies and take the necessary steps to protect the interest of the federated societies.

BUSINESS NOTICE.

WHEN ordering goods state price or brand of the article wanted, also mode of transit, and name of station to which the goods are to be sent. Orders for the different departments should be written on separate slips. Goods not approved of must be returned at once and intact. No claim for breakage, short weight, &c., can be entertained unless made within six days after goods are received. Delay in delivery should be at once advised.

WEEKLY STATEMENT OF ACCOUNT.

5TH WEEK.

73RD QUARTER.

LEDGER FOLIO, 929.

119, PAISLEY ROAD,

GLASGOW, September 3rd, 1887.

*The Grahamston and Bainsford Co-operative Society Limited.**Dr. To The Scottish Co-operative Wholesale Society Limited. Cr.*

GOODS.			CASH AND CREDITS.			
Date.	Amount of each Invoice.	Balance last Statement.	Date.	Cash.	Credit.	Totals.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.
		698 7 2				
Aug. 30..	0 4 3	....	Aug. 30..	....	0 5 0	....
" 30..	18 11 7	....	" 31..	....	1 0 0	....
" 30..	29 0 8	....	" 31..	....	0 12 9	....
" 30..	32 4 0	....	" 31..	....	0 12 10	....
" 30..	0 17 7	....	Sept. 1..	....	0 5 6	....
" 30..	4 10 0	....	" 1..	....	0 1 0	....
" 30..	4 4 0	....	" 1..	....	1 3 6	....
" 30..	3 2 6	....	" 1..	....	2 7 0	....
" 31..	0 6 6	....	" 2..	....	0 12 9	....
" 31..	0 8 3	....	" 2..	....	0 12 9	....
" 31..	0 10 10	....	" 2..	....	0 14 9	....
" 31..	0 8 3	....	" 2..	....	0 10 0	....
" 31..	1 5 0	....	" 3..	....	0 15 6	....
" 31..	0 10 11	....	" 3..	....	10 11 1	....
" 31..	59 16 9	....	" 3..	....	0 15 6	....
" 31..	0 11 3	....	" 3..	....	1 12 0	....
" 31..	7 3 5	....				22 11 11
Sept. 1..	2 10 6	....	" 2..	600 0 0	....	600 0 0
" 1..	4 17 6	....			
" 1..	0 15 2	....			
" 3..	0 6 6	....			
" 3..	0 9 2	....			
" 3..	17 10 0	....			
" 3..	0 18 0	....			
" 3..	3 10 6	....			
" 3..	5 13 8	....			
" 3..	12 11 1	....			
" 3..	4 18 7	....			
" 3..	5 3 6	....			
" 3..	0 12 9	....			
" 3..	0 1 10	....			
" 3..	2 14 9	....			
" 3..	1 8 6	....			
" 3..	27 12 8	....			
		255 10 5				
	To balance,	....			By balance,	331 5 8
	£	953 17 7			£	953 17 7

If the above Statement differs from your Books, we shall be glad if you will point out the difference at once.

Terms of Membership.

MEMBERSHIP.

The Rules relating to the admission of members are:—

No. 6.—The society (that is, the Wholesale) shall consist of such co-operative societies, registered or deemed to be registered under the Industrial and Provident Societies Act, 1876, or Companies Act, 1862–67, as have been admitted by the committee, and each admission must be entered in the minute book of the society. Every application for shares must be sanctioned by a resolution of a general meeting of any society or company making such. The application must be made on the printed form supplied, and duly attested by the signatures of the president, secretary, and three members thereof, and stamped with such society's seal. Every society or company making an application for shares shall state the number of its members, and take not less than one share for each member, and shall increase the number annually as its members increase in accordance with its last return to the Registrar; but no member other than a society registered under the Industrial and Provident Societies Act, 1876, shall hold an interest in the funds exceeding £200.

No. 7.—The capital of the society shall be raised in shares of twenty shillings each. Every member on admission shall pay the sum of not less than one shilling on each share taken up, and the unpaid portion of the shares may be paid up by dividends and interest; but any member may pay up shares in full or part at any time.

APPLICATION FORM.

Whereas, by a resolution of the Co-operative Society Limited, passed at a general meeting held on the day of, it was resolved to take up shares (being one share of twenty shillings for each member), said shares being transferable, in the Scottish Co-operative Wholesale Society Limited, and to accept the same on the terms and conditions specified in the Rules. Executed under the seal of the society on the day of Attested by

.....

 } *Three Members.*

BENEFITS DERIVED FROM MEMBERSHIP.

(a) The liability of the member is limited, each member being only responsible for the value of the shares held.

(b) Members receive double the rate of dividend on purchases paid to non-members.

(c) Share capital is paid 5 per cent per annum.

(d) Members have a share in the management of the Wholesale in proportion to the amount of goods bought, as each society, besides one vote in right of membership, is allowed an extra vote for each £1,000 worth of goods bought.

These advantages, added to the special benefits secured by the leading position of the Wholesale, will, we trust, induce societies as yet non-members to carefully reconsider the question, and take the necessary steps to secure to their members the full benefits of co-operative distribution.

CORRESPONDENCE.

All letters must be addressed to the society, and not to individuals. Addressed envelopes are supplied at cost price. Separate slips ought to be used for the different departments—the Accountant's, Grocery and Provision, Drapery, Boot and Shoe, Furniture. The slips can all be enclosed in the one envelope. Attention to this simple rule will greatly facilitate the despatch of goods and ensure promptitude in answering inquiries; it will also aid in the classification of the letters for reference in any case of irregularity or dispute.

Cash Remittance.

Cheques must be made payable to the Society. If remitted through the UNION BANK OF SCOTLAND LIMITED, the usual commission charged will be saved.

LIST OF BRANCHES OF THE UNION BANK OF SCOTLAND LIMITED.

HEAD OFFICES:—GLASGOW, INGRAM STREET; EDINBURGH, GEORGE STREET.

LONDON OFFICE:—62, CORNHILL, E.C.

Branches:

Aberdeen.	Edinburgh, Morningside.	Lerwick.
Aberdeen, George Street.	„ Newington.	Leslie.
„ West End.	„ Norton Park.	Lochgelly, Fifeshire.
Aberfeldy.	„ S. Morningside	Lochgilphead.
Aberlour, Strathspey.	(sub to Morningside).	Macduff.
Alloa.	Edzell.	Maryhill.
Alva.	Elgin.	Maybole.
Auchterarder.	Ellon.	Mearns (open on Tues-
Auchtermuchty.	Errol.	days and Fridays—sub
Ayr.	Fochabers.	to Barrhead).
Ballater.	Forfar.	Millport.
Banchory.	Fraserburg.	Moffat.
Banff.	Galston.	Moniaive.
Barrhead.	Gatehouse.	New Pitsligo.
Barrhill.	Girvan.	Paisley.
Bathgate.	Glasgow, Anderston.	Partick.
Beith.	„ 174, Argyle St.	Perth.
Blair-Athole (sub to Pit-	„ Bridgeton Cross.	Peterhead.
lochrie).	„ Cowcaddens.	Pitlochrie.
Blairgowrie.	„ Hillhead.	Port-Glasgow.
Braemar.	„ Kinning Park.	Portsoy.
Brechin.	„ St. Vincent St.	Renfrew.
Bridge of Allan.	„ Tradeston.	Roseheartly.
Buckie, Banffshire.	„ Trongate.	St. Margaret's Hope,
Castle-Douglas.	Gourock.	Orkney.
Coatbridge.	Govan.	Scalloway, Shetland (open
Coupar-Angus.	Greenock.	on Tuesdays and Fri-
Crieff.	Hamilton.	days—sub to Lerwick).
Cullen.	Helensburgh.	Shawlands, Glasgow.
Dalbeattie.	Huntly.	Stewarton.
Dalry, Ayrshire (open on	Inverary.	Stirling.
Thursdays—sub to Beith)	Inverness.	Stonehouse (open on Mon-
Dalry, Galloway.	Inverurie.	days, Wednesdays, and
Darvel (sub to Galston).	Irvine.	Saturdays—sub to Lark-
Doune.	Johnstone.	hall).
Dumbarton.	Keith.	Stranraer.
Dumfries.	Killin.	Strathaven.
Dunblane.	Kilmarnock.	Stromness.
Dundee.	Kincardine.	Tarbert, Lochfine.
Dunkeld.	Kirkealdy.	Tarland.
Dunning.	Kirkwall.	Thornhill.
Dunoon.	Kirriemuir.	Tillicoultry.
Edinburgh, Downie Place.	Ladybank.	Troon.
„ Forrest Road.	Largs.	Turriff.
„ Haymarket.	Larkhall.	Wick.
„ Hunter Square	Leith.	

*STATEMENT Showing the PROGRESS of the SOCIETY FROM ITS COMMENCEMENT in September, 1868, till date,
with COMPARISONS of SALES, and other information.*

1st Quarter	Year or Quarter ending.	Number of Shares Subscribed.	Capital: Includes Share, Loan, Reserve, and Insurance Funds.	Net Sales.	Gross Total.	Increase on Corresponding Quarter or previous Year.	Rate per Cent Inc.	Expenses.	Rate per £ on Sales.
	December 7, 1868..	..	£1,795	£9,697	£	£	..	£153	3·8
1st Year—52 wks	December 5, 1869..	..	5,174	81,094	90,791	..	..	1,035	3·0
2nd " 50 "	November 19, 1870..	..	12,542	105,249	196,041	24,155	29·7	1,549	3·5
3rd " 52 "	" 18, 1871..	..	18,009	162,658	358,699	57,408	54·5	2,180	3·2
4th " " "	" 16, 1872..	18,708	30,931	262,530	621,230	99,872	61·4	3,469	3·1
5th " " "	" 15, 1873..	21,271	50,433	384,489	1,005,719	121,958	46·4	5,055	3·1
6th " " "	" 14, 1874..	24,654	48,981	409,947	1,415,667	25,458	6·6	6,696	3·9
7th " " "	" 13, 1875..	27,112	56,750	430,169	1,845,836	20,222	4·9	7,137	3·9
8th " " "	" 4, 1876..	29,008	67,218	457,529	2,303,365	27,359	6·3	7,540	3·9
9th " " "	" 3, 1877..	31,945	72,568	589,221	2,892,586	131,692	28·7	8,648	3·5
10th " " "	" 2, 1878..	34,830	83,173	600,590	3,493,177	11,369	1·9	10,095	4·0
11th " " "	" 2, 1879..	36,008	93,076	630,097	4,123,275	29,507	4·9	11,117	4·2
12th " " "	October 30, 1880..	41,584	110,179	845,221	4,968,496	215,124	34·1	13,020	3·7
13th " " "	November 5, 1881..	49,073	135,713	986,646	5,955,143	141,424	16·7	15,757	3·8
14th " " "	" 4, 1882..	53,684	169,428	1,100,588	7,055,732	113,942	11·5	19,686	4·2
15th " " "	" 3, 1883..	59,529	195,396	1,253,154	8,308,886	152,565	13·8	22,120	4·2
16th " " "	" 1, 1884..	65,331	244,186	1,300,331	9,609,218	47,177	3·7	24,307	4·5
17th " " "	October 31, 1885..	70,066	288,945	1,438,220	11,047,438	137,888	10·6	27,314	4·5
18th " " "	December 25, 1886..	79,874	333,658	1,857,152	12,904,590	418,931	29·1	36,942	4·7
19th " " "	" 31, 1887..	87,220	367,309	1,810,015	14,714,606	153,965	9·2	35,800	4·7
20th " " "	" 29, 1888..	96,521	409,668	1,963,853	16,678,460	178,897	10·0	39,411	4·8
21st " " "	" 28, 1889..	107,004	480,622	2,273,782	18,952,242	309,928	15·7	44,311	4·6
22nd " " "	" 27, 1890..	117,664	575,322	2,475,601	21,427,843	201,819	8·8	49,641	4·8
23rd " " "	" 26, 1891..	131,086	671,108	2,828,036	24,255,880	352,435	14·2	58,140	4·8
94th Quar.—13 wks	March 26, 1892..	135,116	713,816	714,314	24,970,194	79,584	12·5	15,298	5·1
95th " 13 "	June 25, 1892..	136,911	719,298	757,937	25,728,132	64,119	9·8	15,836	5·0

	1st Quarter....	Year or Quarter ending	Net Profit.	Total Net Profit.	Aver- age Divi- dend.	RESERVE AND INSURANCE FUNDS.		DEPRECIATIONS ALLOWED ON BUILDINGS AND FIXTURES.	
						Added.	Withdrawn.	Amount.	Total Amount.
			£48	£	d.	£48	£	£9	£
1st Year—52 wks		December 5, 1869..		1,352	3 $\frac{1}{4}$	63		129	138
2nd "	50 "	November 19, 1870..	1,303	3,770	4 $\frac{3}{4}$	324	..	111	250
3rd "	52 "	" 18, 1871..	2,418	7,992	5 $\frac{1}{4}$	578	..	205	455
4th "	" "	" 16, 1872..	4,131	13,337	4 $\frac{3}{4}$	471	..	346	801
5th "	" "	" 15, 1873..	5,435	20,783	4 $\frac{3}{4}$	355	141	657	1,439
6th "	" "	" 14, 1874..	7,445	28,336	4 $\frac{1}{4}$	1,049	104	784	2,243
7th "	" "	" 13, 1875..	7,553	36,569	4	338	580	321	2,565
8th "	" "	" 4, 1876..	8,232	45,405	4	791	672	452	3,017
9th "	51 "	" 3, 1877..	8,836	56,330	4	918	343	485	3,503
10th "	52 "	" 2, 1878..	10,925	68,298	4	721	269	1,155	4,659
11th "	" "	" 2, 1879..	11,968	83,287	4 $\frac{3}{4}$	2,215	160	1,336	5,995
12th "	" "	October 30, 1880..	14,988	104,973	6 $\frac{3}{4}$	3,134	336	1,086	7,082
13th "	53 "	November 5, 1881..	21,685	128,954	6	3,086	2,694	1,653	8,735
14th "	52 "	" 4, 1882..	23,981	152,174	5 $\frac{1}{2}$	3,824	334	1,688	10,424
15th "	" "	" 3, 1883..	23,219	180,540	5 $\frac{3}{4}$	3,801	1,530	2,420	12,844
16th "	" "	" 1, 1884..	28,365	209,974	5 $\frac{1}{4}$	4,428	1,525	2,039	14,884
17th "	" "	October 31, 1885..	29,434	249,616	6 $\frac{3}{4}$	4,393	610	3,475	18,359
18th "	" "	December 25, 1886..	39,641	300,014	6 $\frac{1}{2}$	5,528	1,315	2,980	21,340
19th "	60 "	" 31, 1887..	50,398	347,293	6 $\frac{3}{4}$	8,474	1,389	3,019	24,360
20th "	53 "	" 29, 1888..	47,278	400,832	6 $\frac{1}{4}$	7,615	3,392	8,170	32,530
21st "	52 "	" 28, 1889..	53,538	462,588	6 $\frac{1}{2}$	10,244	2,941	6,284	38,815
22nd "	" "	" 27, 1890..	61,756	539,134	7	10,636	1,931	6,843	45,659
23rd "	" "	" 26, 1891..	76,545	628,225	6 $\frac{3}{4}$	12,326	3,362	11,433	57,092
94th Quar.—13 wks.		March	89,090						
95th "	" "	June	18,872	647,097	7	3,628	272	2,263	59,355
	" "	25, 1892..	26,160	673,258	7	3,424	624	2,253	61,608

GROCERY DEPARTMENT, GLASGOW.
YEARLY STATEMENT. SALES, EXPENSES, AND NET PROFIT.

GROCERY DEPARTMENT, GLASGOW.																	
YEARLY STATEMENT. SALES, EXPENSES, AND NET PROFIT.																	
	NET SALES.										Expenses. £ s. d.	Rate per £ of Sales.	Net Profit. £ s. d.	Rate per £ of Sales.	Stocks. £		
	Drapery and Boots.			Dundee.			Kilmarnock.		Grocery, Glasgow.							Total. £ s. d.	
	£	s.	d.	£	s.	d.	£	s.	d.	£							s.	d.
Quarter ending Dec. 7, 1868..	....	....	....	....	....	....	9,697	7	1	153	5	4	48	12	10	d.	£
52 weeks " 5, 1869..	....	....	....	....	....	....	81,094	2	6	1,035	12	8	1,303	15	0	38	4,648
50 " Nov. 9, 1870..	....	....	....	....	....	....	105,249	12	4	1,549	17	2	2,418	9	2	56	5,478
52 " 18, 1871..	....	....	....	....	....	....	162,658	7	7	2,180	18	3	4,131	8	6	60	9,060
52 " 16, 1872..	....	....	....	....	....	....	262,530	19	10	3,469	18	4	5,435	3	9	49	14,000
52 " 15, 1873..	....	....	....	....	....	....	384,489	4	0	5,055	15	7	7,445	19	1	45	21,050
52 " 14, 1874..	....	....	....	....	....	....	409,947	7	9	6,696	14	2	7,553	5	2	44	24,510
52 " 13, 1875..	....	....	....	....	....	....	430,169	7	11	7,137	15	5	8,232	11	6	44	24,700
51 " 4, 1876..	42,952	0	10	....	....	....	414,576	19	6	7,540	2	8	8,836	2	3	45	29,400
52 " 3, 1877..	50,654	14	2	....	....	....	507,582	14	4	8,196	19	7	10,443	15	6	44	39,510
52 " 2, 1878..	56,480	17	7	....	....	....	467,342	1	0	8,976	5	4	10,289	0	10	47	40,130
52 " 2, 1879..	60,046	3	9	....	....	....	481,949	12	2	9,832	8	6	12,625	11	3	55	50,400
52 " Oct. 30, 1880..	83,856	9	10	....	....	....	615,601	5	5	10,880	2	11	17,908	0	6	60	43,190
53 " Nov. 5, 1881..	102,157	0	11	11,121	15	7	679,534	6	4	12,930	11	8	18,439	1	3	55	63,380
6 months " May 6, 1882..	53,190	8	0	10,385	14	5	33,413	13	0	8,080	8	7	8,270	16	9	48	61,920
6 " Nov. 4, 1882..	....	....	....	....	....	....	383,834	1	3	5,299	13	4	7,539	19	0	47	34,620
52 weeks " 3, 1883..	....	....	....	....	....	....	776,681	1	5	10,940	9	4	15,350	8	9	47	38,374
52 " 1, 1884..	....	....	....	....	....	....	759,443	11	7	11,152	5	4	14,281	1	1	45	30,081
52 " Oct. 31, 1885..	....	....	....	....	....	....	761,889	7	11	11,881	1	0	16,187	18	9	50	28,130
60 " Dec. 25, 1886..	....	....	....	....	....	....	936,030	19	0	14,481	16	4	19,073	6	9	49	37,450
53 " 31, 1887..	....	....	....	....	....	....	895,560	6	4	13,163	8	7	20,351	5	3	54	56,095
52 " 29, 1884..	....	....	....	....	....	....	972,790	2	2	14,435	1	0	23,399	9	11	57	44,610
52 " 28, 1889..	....	....	....	....	....	....	1,148,832	5	5	16,190	9	8	27,930	15	8	58	56,000
52 " 27, 1890..	....	....	....	....	....	....	1,223,450	16	3	17,406	17	10	30,380	13	7	59	63,000
52 " 26, 1891..	....	....	....	....	....	....	1,419,722	0	0	20,141	6	3	34,714	5	7	58	87,400
13 " Mar. 26, 1892..	....	....	....	....	....	....	363,183	6	8	5,378	15	2	8,494	6	10	56	84,200
13 " June 25, 1892..	....	....	....	....	....	....	378,482	14	2	5,536	19	11	8,168	17	4	49	68,370
Totals.....	449,357	15	1	21,507	10	0	15,368,747	12	11	232,724	19	11	349,254	1	10	53	68,370

GROCERY DEPARTMENT, LEITH.

YEARLY STATEMENT, SHOWING SALES, EXPENSES, AND NET PROFIT.

	Net Sales.	Expenses.	Rate of Pence per £.	Net Profit.	Rate of Pence per £.	Amount of Stock.
Year ending November 3, 1877—52 weeks.....	£ 30,984	£ 451	d. 3·5	£ 481	d. 3·7	£ 4,590
" " 2, 1878 "	s. 0	s. 17	d. 3·5	s. 12	d. 5·2	3,000
" " 1, 1879 "	d. 9	d. 0	d. 3·5	d. 9	d. 6·4	6,480
" " 3, 1880 "	£ 76,767	£ 1,119	d. 3·5	£ 1,679	d. 6·2	8,410
October 3, 1880 "	£ 88,101	£ 1,284	d. 3·5	£ 2,363	d. 6·8	13,400
November 5, 1881—53 "	£ 145,764	£ 2,140	d. 3·5	£ 3,777	d. 5·7	14,890
" " 4, 1882—52 "	£ 193,833	£ 2,826	d. 3·4	£ 5,542	d. 5·7	20,045
" " 3, 1883 "	£ 205,728	£ 2,927	d. 3·2	£ 4,895	d. 5·9	16,250
" " 1, 1884 "	£ 255,160	£ 3,488	d. 3·4	£ 6,093	d. 6·9	29,750
" " 31, 1885 "	£ 281,509	£ 3,992	d. 3·3	£ 6,935	d. 6·0	24,000
October 31, 1885 "	£ 363,664	£ 5,031	d. 3·4	£ 10,572	d. 6·3	42,420
December 25, 1886—60 "	£ 496,240	£ 7,160	d. 3·5	£ 12,452	d. 6·3	31,080
" " 31, 1887—53 "	£ 496,673	£ 7,256	d. 3·5	£ 13,217	d. 5·5	35,750
" " 29, 1888—52 "	£ 536,600	£ 7,971	d. 3·4	£ 14,112	d. 5·9	34,600
" " 28, 1889—52 "	£ 584,617	£ 8,381	d. 3·3	£ 13,525	d. 6·4	42,820
" " 27, 1890—52 "	£ 602,908	£ 8,371	d. 3·4	£ 15,031	d. 5·6	40,040
" " 26, 1891—52 "	£ 693,179	£ 9,825	d. 3·4	£ 18,421	d. 5·0	40,100
Quarter ending March 26, 1892—13 "	£ 174,625	£ 2,458	d. 3·4	£ 4,081		
" " June 25, 1892—13 "	£ 173,705	£ 2,485	d. 3·4	£ 3,684		
Totals	£ 5,400,065	£ 77,173	d. 3·4	£ 136,867	d. 6·0	40,100

QUARTERLY STATEMENT,

FROM DATE OF KEEPING

Quarter Ending		Net Sales.			Expenses.		
		£	s.	d.	£	s.	d.
August	5, 1882	6,594	0	5	190	15	1
November	4, 1882	8,849	10	3	221	7	8
February	3, 1883	9,894	13	1	245	18	11
May	5, 1883	10,192	13	4	236	7	10
August	4, 1883	7,979	7	10	245	14	8
November	3, 1883	11,625	19	8	225	0	1
February	2, 1884	8,446	16	2	217	1	5
May	3, 1884	9,492	2	9	197	12	5
August	2, 1884	9,145	12	11	208	15	8
November	1, 1884	12,989	5	11	198	7	11
January	31, 1885	10,094	9	8	204	18	3
May	2, 1885	8,874	3	9	159	14	3
August	1, 1885	8,644	2	7	192	11	6
October	31, 1885	14,012	17	7	208	14	3
January	30, 1886	9,461	10	4	204	13	0
May	1, 1886	9,439	14	11	177	13	5
July	31, 1886	9,434	7	4	195	15	8
* December	25, 1886	23,129	5	10	309	3	2
March	26, 1887	11,129	13	7	170	3	9
June	25, 1887	9,928	13	5	189	4	9
September	24, 1887	15,469	2	4	221	10	8
† December	31, 1887	16,152	2	11	245	9	8
March	31, 1888	11,715	9	7	179	9	8
June	30, 1888	13,539	14	3	202	10	10
September	29, 1888	13,946	14	7	218	14	2
December	29, 1888	15,162	13	11	229	9	1
March,	30 1889	10,597	0	5	178	4	0
June	29, 1889	11,538	7	6	216	13	3
September	28, 1889	14,378	11	7	224	18	1
December	28, 1889	17,926	18	8	233	2	5
March	29, 1890	12,361	8	6	194	12	5
June	28, 1890	13,618	4	4	275	0	3
September	27, 1890	14,223	6	2	199	8	3
December	27, 1890	16,807	11	3	246	2	10
March	28, 1891	14,162	9	0	222	13	6
June	27, 1891	14,804	7	6	274	11	7
September	26, 1891	16,299	14	11	264	15	11
December	26, 1891	22,168	2	4	227	1	2
March	26, 1892	16,745	1	7	276	11	9
June	25, 1892	15,327	12	8	315	14	3
Totals		506,303	15	4	8,944	7	5

* Twenty-one weeks. † Fourteen weeks.

GROCERY DEPARTMENT, KILMARNOCK.

A SEPARATE ACCOUNT.

Rate per £ of Sales.	Net Profit.			Rate per £ of Sales.	Stocks.
d.	£	s.	d.	d.	£
7.0	163	7	8	6.0	535
6.0	137	9	1	3.7	1,550
5.9	362	11	7	8.7	2,320
5.5	472	3	0	11.1	2,120
7.3	238	4	11	7.1	720
4.6	176	13	6	3.6	1,663
6.1	123	10	4	3.5	2,898
4.9	162	2	9	4.0	1,781
5.4	114	15	5	3.0	963
3.7	235	6	3	4.2	2,812
4.8	69	14	9	1.6	2,521
4.3	258	5	9	6.9	1,750
5.3	102	4	1	2.8	1,132
3.5	534	12	2	9.1	2,300
5.2	295	13	5	7.5	2,010
4.5	289	7	4	7.3	1,600
4.9	264	10	0	6.7	760
3.2	908	16	9	9.4	2,070
3.6	364	3	8	7.8	2,615
4.5	255	7	8	6.1	1,525
3.4	895	18	3	13.6	1,070
4.2	758	15	6	11.2	2,585
4.0	328	8	3	6.7	2,850
3.6	379	15	5	6.7	2,410
3.8	23	10	11	0.4	2,329
3.6	324	10	8	5.1	3,200
4.0	178	19	2	4.0	2,080
4.5	102	6	9	2.1	2,600
3.7	406	12	5	6.8	1,420
3.1	623	11	11	8.3	2,910
3.7	560	3	8	10.8	2,040
4.8	563	8	7	9.9	1,050
3.3	550	8	9	9.2	190
3.5	972	15	1	13.8	2,400
3.7	685	3	1	11.6	1,480
4.4	609	2	3	9.8	2,000
3.8	620	3	7	9.1	1,170
3.5	875	2	0	9.5	2,225
3.9	1,070	6	5	15.3	2,400
4.9	786	7	3	12.3	2,440
4.2	16,834	10	0	7.9	2,440

QUARTERLY STATEMENT,
FROM DATE OF KEEPING

Quarter Ending		Net Sales.			Expenses.		
		£	s.	d.	£	s.	d.
August	5, 1882	6,328	4	0	237	2	11
November	4, 1882	7,180	12	3	207	17	9
February	3, 1883	8,513	10	1	217	6	4
May	5, 1883	8,583	16	3	226	13	4
August	4, 1883	9,050	6	4	245	1	3
November	3, 1883	8,533	5	8	218	11	2
February	2, 1884	9,278	1	10	235	12	9
May	3, 1884	10,943	14	6	252	16	9
August	2, 1884	12,648	2	11	262	11	10
November	1, 1884	13,776	3	6	275	12	6
January	31, 1885	12,080	7	2	291	8	8
May	2, 1885	13,424	7	0	242	12	6
August	1, 1885	14,930	3	3	251	12	1
October	31, 1885	15,685	3	4	271	7	11
January	30, 1886	12,248	16	9	248	12	8
May	1, 1886	13,616	12	9	283	8	7
July	31, 1886	14,912	1	10	265	7	11
* December	25, 1886	22,975	17	8	397	17	9
March	26, 1887	13,916	4	6	244	6	5
June	25, 1887	13,810	2	11	241	9	2
September	24, 1887	15,064	15	6	265	8	7
† December	31, 1887	16,231	4	0	281	14	4
March	31, 1888	12,205	12	7	246	11	4
June	30, 1888	14,865	19	7	262	6	11
September	29, 1888	14,857	13	3	281	9	7
December	29, 1888	15,323	1	0	284	8	1
March	30, 1889	16,415	11	3	256	13	3
June	29, 1889	20,090	11	2	286	1	0
September	28, 1889	19,022	12	6	295	18	4
December	28, 1889	17,987	11	8	284	1	6
March	29, 1890	15,713	6	7	274	19	11
June	28, 1890	16,324	16	0	288	16	9
September	27, 1890	18,593	3	6	321	13	11
December	27, 1890	16,411	8	5	303	8	0
March	28, 1891	19,284	18	2	322	10	5
June	27, 1891	19,673	16	4	313	17	9
September	26, 1891	21,683	3	1	310	16	4
December	26, 1891	19,207	14	2	296	1	6
March	26, 1892	21,503	7	8	290	18	2
June	25, 1892	22,609	4	1	314	3	2
Totals		595,532	5	0	10,899	9	1

* Twenty-one weeks.

† Fourteen weeks.

GROCERY DEPARTMENT, DUNDEE.

A SEPARATE ACCOUNT.

Rate per £ of Sales.	Net Profit.	Rate per £ of Sales.	Net Loss.	Rate per £ of Sales.	Stocks.
d.	£ s. d.	d.	£ s. d.	d.	£
8.8	....	..	126 19 9	4.8	1,205
7.0	....	..	98 12 7	3.3	1,474
6.1	57 12 4	1.8	....	..	1,040
6.3	96 1 7	2.7	....	..	1,080
6.5	5 15 3	0.1	....	..	1,923
6.1	71 2 5	2.0	....	..	2,455
6.1	88 14 11	2.2	....	..	2,250
5.6	181 7 10	4.0	....	..	1,975
5.0	260 9 7	4.9	....	..	2,950
4.8	73 16 8	1.3	....	..	2,690
5.8	111 1 3	2.2	....	..	1,080
4.3	189 3 2	3.4	....	..	1,950
4.0	359 16 4	5.8	....	..	2,940
4.2	348 15 2	5.3	....	..	2,890
4.8	238 13 5	4.6	....	..	1,300
5.0	86 11 2	1.5	....	..	2,670
4.2	205 17 7	3.3	....	..	3,250
4.1	348 8 3	3.7	....	..	2,600
4.2	163 5 0	2.8	....	..	1,885
4.2	210 10 3	3.6	....	..	3,050
4.2	212 6 11	3.4	....	..	3,020
4.2	279 17 11	4.2	....	..	3,210
4.8	286 9 8	5.6	....	..	2,770
4.2	154 19 5	2.5	....	..	3,740
4.5	253 8 2	4.1	....	..	5,370
4.4	321 3 11	5.0	....	..	2,710
3.7	245 2 6	3.5	....	..	3,230
3.4	618 7 4	7.3	....	..	5,940
3.7	60 4 11	0.7	....	..	4,590
3.7	206 9 7	2.7	....	..	4,150
4.2	244 7 7	3.7	....	..	3,420
4.2	244 8 2	3.6	....	..	3,590
4.1	290 8 8	3.7	....	..	5,390
4.4	364 2 5	5.3	....	..	4,070
4.0	282 12 10	3.5	....	..	4,070
3.8	309 10 10	3.7	....	..	5,200
3.4	458 0 11	5.0	....	..	4,360
3.7	338 8 8	4.2	....	..	3,550
3.2	390 5 0	4.3	....	..	3,500
3.3	251 1 8	2.6	....	..	4,660
4.4	8,918 19 3	..	225 12 4	..	4,660
	225 12 4	..			
	8,693 6 11	3.5			

QUARTERLY STATEMENT,

FROM DATE OF KEEPING

Quarter Ending		NET SALES.								
		Boots.			Furniture.			Drapery.		
		£	s.	d.	£	s.	d.	£	s.	d.
August	5, 1882.....	8,351	15	0	2,693	6	11	21,144	6	11
November	4, 1882.....	9,267	11	10	2,057	1	11	25,587	12	9
February	3, 1883.....	7,520	4	4	2,280	17	3	22,301	14	3
May	5, 1883.....	8,159	0	7	1,904	14	4	25,682	6	9
August	4, 1883.....	9,368	12	4	3,045	1	9	23,937	10	11
November	3, 1883.....	9,658	4	3	2,518	11	10	30,562	12	8
February	2, 1884.....	8,944	16	1	2,994	17	9	26,445	3	8
May	3, 1884.....	9,782	13	2	2,307	11	1	30,463	14	9
August	2, 1884.....	10,981	0	10	4,595	4	10	28,337	2	6
November	1, 1884.....	10 884	13	3	2,887	1	9	34,034	16	0
January	31, 1885.....	.....			.....			30,267	3	3
May	2, 1885.....	.....			.....			37,153	15	9
August	1, 1885.....	.....			.....			33,578	12	7
October	31, 1885.....	.....			.....			39,994	14	4
January	30, 1886.....	.....			.....			33,029	17	3
May	1, 1886.....	.....			.....			44,570	7	11
July	31, 1886.....	.....			.....			42,129	5	5
*December	25, 1886.....	.....			.....			75,835	10	10
March	26, 1887.....	.....			.....			40,647	13	5
June	25, 1887.....	.....			.....			50,432	4	9
September	24, 1887.....	.....			.....			47,697	15	3
†December	31, 1887.....	.....			.....			55,420	13	10
March	31, 1888.....	.....			.....			48,630	9	0
June	30, 1888.....	.....			.....			56,216	13	4
September	29, 1888.....	.....			.....			57,138	9	11
December	29, 1888.....	.....			.....			56,928	16	6
March	30, 1889.....	.....			.....			55,006	12	0
June	29, 1889.....	.....			.....			64,163	10	4
September	28, 1889.....	.....			.....			67,747	18	7
December	28, 1889.....	.....			.....			74,256	1	8
March	29, 1890.....	.....			.....			71,632	4	4
June	28, 1890.....	.....			.....			81,166	2	4
September	27, 1890.....	.....			.....			82,909	0	0
December	27, 1890.....	.....			.....			90,353	10	7
March	28, 1891.....	.....			.....			75,469	2	3
June	27, 1891.....	.....			.....			87,041	2	1
September	26, 1891.....	.....			.....			87,043	18	2
December	26, 1891.....	.....			.....			100,331	15	2
March	26, 1892.....	.....			.....			90,987	12	0
June	25, 1892.....	.....			.....			100,312	14	3
Totals.....		92,918	11	8	27,284	9	5	2,146,590	19	3

* Twenty-one weeks.

† Fourteen weeks.

DRAPERY DEPARTMENT.

A SEPARATE ACCOUNT.

NET SALES.																Rate							
				Expenses.				Rate per £ of Sales.				Net Profit.				per £ of Sales.				Stocks.			
Total.																							
£	s.	d.		£	s.	d.		£				£	s.	d.		£				£			
32,189	8	10		1,123	9	9		8·4				1,171	8	2		8·7				28,560			
36,912	6	6		1,356	1	2		8·8				1,308	6	6		8·7				34,030			
32,102	15	10		1,409	11	3		10·5				967	14	0		7·2				33,260			
35,746	1	8		1,438	12	11		9·6				1,090	8	2		7·3				31,231			
36,351	5	0		1,447	8	1		9·5				1,284	12	4		8·5				31,253			
42,739	8	9		1,534	9	3		8·6				1,807	4	8		10·1				32,281			
38,384	17	6		1,588	18	8		9·9				1,605	11	5		10·0				33,192			
42,553	19	0		1,666	5	8		9·4				1,591	16	7		9·0				36,065			
43,913	8	2		1,731	9	9		9·4				1,717	4	10		9·3				35,784			
47,806	11	0		1,827	15	5		9·1				1,899	14	5		9·5				39,661			
30,267	3	3		1,290	0	9		10·2				1,319	11	1		10·1				31,084			
37,153	15	9		1,414	15	11		9·1				1,492	17	7		9·6				32,340			
33,578	12	7		1,438	19	0		10·2				1,211	0	11		8·7				31,020			
39,994	14	4		1,547	6	10		9·2				1,847	0	5		11·0				35,990			
33,029	17	3		1,554	9	2		11·2				1,216	7	10		9·0				33,150			
44,570	17	11		1,641	9	6		8·8				1,709	19	3		9·2				36,340			
42,129	5	5		1,705	8	3		9·7				1,801	11	5		10·3				40,100			
75,835	10	10		3,362	6	4		10·6				3,983	5	11		12·6				45,740			
40,647	13	5		2,028	12	8		11·9				1,248	2	8		7·3				47,670			
50,432	4	9		2,081	15	1		9·9				2,185	17	1		10·4				42,170			
47,697	15	3		2,065	14	10		10·3				2,234	6	10		11·2				45,870			
55,420	13	10		2,294	1	9		10·0				2,487	10	2		10·7				41,400			
48,630	9	0		2,176	17	7		10·7				1,661	14	11		8·2				48,645			
56,216	13	4		2,257	18	4		9·6				2,175	16	9		9·2				43,240			
57,138	9	11		2,324	4	0		9·7				2,186	15	11		9·2				50,050			
56,928	16	6		2,486	11	6		10·4				2,057	16	3		8·6				47,990			
55,006	13	0		2,493	3	11		10·8				2,294	3	2		10·0				54,600			
64,163	10	4		2,645	6	9		9·9				3,167	18	6		11·8				50,900			
67,747	18	7		2,776	1	7		9·8				2,707	18	0		9·5				64,600			
74,256	1	8		2,887	18	9		9·3				3,230	4	0		10·4				58,800			
71,632	4	4		2,997	12	3		10·0				3,297	1	4		11·0				72,080			
81,166	2	4		3,306	17	9		9·7				3,416	9	5		10·1				62,200			
82,909	0	0		3,597	19	6		10·4				3,400	5	8		9·8				74,620			
90,353	10	7		3,709	0	1		9·8				4,456	19	3		11·8				64,000			
75,469	2	3		3,915	7	4		12·4				2,738	0	2		8·7				78,000			
87,041	2	1		4,101	15	7		11·3				3,088	16	11		8·5				70,100			
87,043	18	2		4,030	16	4		11·1				3,269	6	3		9·0				80,980			
100,331	15	2		4,091	11	4		9·7				4,716	18	9		11·2				69,970			
99,987	12	0		4,312	4	7		11·3				3,410	19	8		9·0				84,400			
100,312	14	3		4,375	13	0		10·4				4,331	15	8		10·3				77,810			
2,266,794 0 4				96,036 2 2				10·1				92,790 12 10				9·8				77,810			

QUARTERLY STATEMENT,
FROM DATE OF KEEPING

	Net Sales.			Expenses.		
	£	s.	d.	£	s.	d.
Quarter ending January 31, 1885..	10,188	11	5	290	18	9
„ „ May 2, 1885..	12,549	19	5	353	2	4
„ „ August 1, 1885..	16,185	10	11	429	16	10
„ „ October 31, 1885..	16,542	18	4	529	0	6
„ „ January 30, 1886..	14,120	7	6	549	9	11
„ „ May 1, 1886..	16,190	5	3	556	12	0
„ „ July 31, 1886..	16,467	16	11	538	0	6
„ „ *December 25, 1886..	28,856	18	8	980	7	10
„ „ March 25, 1887..	14,242	19	10	602	18	11
„ „ June 25, 1887..	18,416	14	3	602	10	3
„ „ September 24, 1887..	17,259	16	10	598	15	6
„ „ †December 31, 1887..	20,704	14	9	736	4	10
„ „ March 31, 1888..	16,373	12	5	669	10	7
„ „ June 30, 1888..	19,721	3	3	652	6	7
„ „ September 29, 1888..	19,657	10	9	705	7	2
„ „ December 29, 1888..	22,183	2	7	781	13	8
„ „ March 30, 1889..	18,000	17	5	751	17	11
„ „ June 29, 1889..	24,306	1	9	873	14	1
„ „ September 28, 1889..	22,671	17	3	872	5	2
„ „ December 28, 1889..	26,200	2	6	893	19	7
„ „ March 29, 1890..	22,593	13	8	900	17	4
„ „ June 28, 1890..	28,847	19	5	1,022	19	8
„ „ September 27, 1890..	29,285	17	2	929	3	8
„ „ December 27, 1890..	31,008	16	11	958	18	0
„ „ March 28, 1891..	27,090	17	3	988	0	7
„ „ June 27, 1891..	34,702	19	11	1,040	19	8
„ „ September 26, 1891..	33,273	16	8	1,019	3	9
„ „ December 26, 1891..	37,424	1	0	1,097	15	8
„ „ March 26, 1892..	29,028	13	5	1,088	15	7
„ „ June 25, 1892..	39,526	1	10	1,230	1	10
Totals	683,623	19	3	23,245	8	8

* Twenty-one weeks. † Fourteen weeks.

BOOT AND SHOE DEPARTMENT.

A SEPARATE ACCOUNT.

Rate of Pence per £ of sales.	Net Profit.	Rate of Pence per £ of Sales.	Stocks.
	£ s. d.		£
6·8	596 3 8	14·0	5,990
6·7	608 18 9	11·6	5,530
6·4	777 3 8	11·5	9,400
7 6	499 12 2	7·2	11,520
9·3	460 5 6	7 8	11,200
8·3	560 19 3	8·3	11,130
7 9	585 11 5	8·5	11,490
8·2	942 0 7	7·8	15,500
10·1	256 19 6	4·3	14,150
7·8	616 6 6	8·0	13,185
8·2	310 11 7	4·3	14,730
8·3	605 2 9	7 0	15,490
10·1	153 9 6	2·3	15,630
8·0	389 16 3	4·7	11,710
8·6	464 2 1	5·6	13,300
8·4	424 2 5	4·7	15,390
10·0	240 2 8	3·2	14,680
8·6	589 8 9	5·8	15,070
9·2	441 5 7	4·7	18,000
8·2	720 13 3	6·6	16,950
9·5	444 10 10	4·7	16,420
8·5	885 16 10	7·4	16,560
7·7	888 6 1	7·2	15,650
7·4	1,012 6 5	7·8	14,360
8·7	889 8 2	7·8	14,930
7·2	1,292 6 11	8·9	17,050
7·3	1,238 11 2	8·9	14,800
7·0	1,515 18 10	9·7	17,470
9·0	1,009 4 2	8·3	17,630
7 4	1,645 17 8	9·9	16,760
8·1	21,065 2 11	7·4	16,760

QUARTERLY STATEMENT, FURNITURE

FROM DATE OF KEEPING

		Net Sales.			Expenses.		
		£	s.	d.	£	s.	d.
Quarter ending	January 31, 1885..	3,022	18	2	210	11	11
"	" May 2, 1885..	2,636	9	6	262	5	10
"	" August 1, 1885..	7,200	12	9	392	6	7
"	" October 31, 1885..	5,599	11	1	420	1	5
"	" January 20, 1886..	6,744	8	11	445	7	4
"	" May 1, 1886..	7,026	7	0	470	18	2
"	" July 31, 1886..	9,621	1	11	500	9	6
"	" *December 25, 1886..	13,157	12	1	914	4	7
"	" March 25, 1887..	7,315	11	8	577	14	1
"	" June 25, 1887..	11,033	17	4	590	17	11
"	" September 24, 1887..	8,567	19	0	618	12	4
"	" †December 31, 1887..	11,956	12	7	723	6	11
"	" March 31, 1888..	8,295	17	1	667	6	7
"	" June 30, 1888..	12,865	9	6	738	3	6
"	" September 29, 1888..	9,876	13	4	780	1	6
"	" December 29, 1888..	12,582	11	8	860	10	4
"	" March 30, 1889..	9,970	0	8	814	4	1
"	" June 29, 1889..	15,812	15	7	918	7	0
"	" September 28, 1889..	12,451	19	0	905	16	2
"	" December 28, 1889..	16,871	0	8	930	18	5
"	" March 29, 1890..	14,418	6	7	926	4	4
"	" June 28, 1890..	21,501	17	11	1,045	3	0
"	" September 27, 1890..	18,076	15	11	1,103	5	1
"	" December 27, 1890..	22,149	13	4	1,261	10	4
"	" March 28, 1891..	15,095	13	8	1,287	17	7
"	" June 27, 1891..	25,335	18	11	1,412	1	8
"	" September 26, 1891..	19,759	6	0	1,384	18	2
"	" December 26, 1891..	24,953	4	7	1,471	7	10
"	" March 26, 1892..	18,157	8	11	1,492	1	11
"	" June 25, 1892..	27,834	1	5	1,578	10	5
Totals.....		399,891	16	9	25,705	4	6

* Twenty-one weeks. † Loss. ‡ Fourteen weeks.

AND FURNISHING DEPARTMENT.

A SEPARATE ACCOUNT.

Rate per £ of Sales.	Net Profit.	Rate per £ of Sales.	Stocks.
d.	£ s. d.	d.	£
16·7	81 13 3	6·4	3,500
23·8	†4 17 11	0·4	4,410
13 0	221 4 9	7·4	4,620
18·0	133 3 10	5·6	5,600
15·8	145 4 10	5·2	6,180
16·0	195 9 8	6·4	7,020
12·4	410 10 0	10·2	7,650
16·6	292 9 7	5·4	7,400
18·9	160 16 8	5·2	8,750
12·8	641 14 4	13·9	9,290
17·3	323 12 11	9·0	9,570
14·5	677 17 2	13·6	9,150
19·3	311 7 10	9 0	10,370
13·9	735 16 7	13·9	10,540
18·9	245 16 0	5·9	10,000
16·4	412 16 5	7·8	10,820
19·6	285 2 3	6·8	11,990
13·9	762 19 10	7·5	11,170
17·4	625 14 2	12·0	10,380
13·2	916 2 10	13·0	10,450
15·4	567 11 8	9·4	11,410
11·6	1,330 5 4	14·9	11,150
15·3	1,287 13 10	17·0	12,240
13·6	1,504 10 0	16·2	13,600
20·4	557 8 2	8·8	15,700
13·3	1,323 6 11	12·5	16,350
16·8	1,138 9 3	13·8	16,520
14·1	1,026 0 6	9·9	16,400
19·7	410 18 11	5·4	18,330
13·6	1,368 12 10	11·8	16,600
15·4	18,108 8 3	10·8	16,600

PRODUCTIVE DEPARTMENT.

QUARTERLY STATEMENT SHOWING

Quarter Ending		Transferred.	Production.	Expenses on Production.
		£ s. d.	£ s. d.	£ s. d.
November	4, 1882..	427 10 10	427 10 10	319 12 11
February	3, 1883..	542 7 3	542 7 3	386 2 6
May	5, 1883..	541 8 10	541 8 10	404 5 6
August	4, 1883	647 18 2	647 18 2	484 17 7
November	3, 1883..	537 13 10	537 13 10	357 13 9
February	2, 1884..	464 3 0	464 3 0	304 3 7
May	3, 1884..	587 6 0	587 6 0	435 16 7
August	2, 1884..	631 8 0	631 8 0	463 8 0
November	1, 1884..	838 10 10	838 10 10	450 5 9
January	31, 1885..	661 1 6	661 1 6	426 4 10
May	2, 1885..	838 8 3	838 8 3	491 7 3
August	1, 1885..	947 8 5	947 8 5	569 11 6
October	31, 1885..	1,164 13 7	1,164 13 7	692 2 0
January	30, 1886..	1,128 2 2	1,128 2 2	742 7 1
May	1, 1886..	1,474 0 7	1,474 0 7	814 6 1
July	31, 1886..	1,511 2 1	1,511 2 1	869 4 8
*December	25, 1886..	2,139 13 9	2,139 13 9	1,420 12 6
March	26, 1887..	1,587 2 3	1,587 2 3	926 18 10
June	25, 1887..	2,265 11 8	2,265 11 8	1,351 1 8
September	24, 1887..	1,927 17 10	1,927 17 10	1,282 9 8
December	31, 1887..	2,298 14 10	1,965 1 1	1,286 17 8
March	31, 1888..	1,529 11 9	1,692 5 1	1,077 12 1
June	30, 1888..	2,212 9 9	2,227 2 1	1,335 15 10
September	29, 1888..	2,270 9 2	2,203 14 3	1,404 15 8
December	29, 1888..	2,319 5 1	2,516 5 1	1,492 14 4
March	30, 1889..	1,892 6 4	1,784 6 5	1,210 6 10
June	29, 1889..	2,464 17 4	2,449 6 3	1,450 15 11
September	28, 1889..	1,865 7 0	1,932 14 0	1,258 6 5
December	28, 1889..	3,027 12 11	3,233 4 0	1,660 14 5
March	29, 1890..	2,624 6 1	6,446 19 3	1,703 14 3
June	28, 1890..	4,078 11 4		1,957 3 8
September	27, 1890..	3,208 11 1	7,691 2 10	1,996 15 4
December	27, 1890..	3,957 18 3		2,175 4 5
March	28, 1891..	2,249 16 9	6,012 16 5	1,666 3 10
June	27, 1891..	3,877 5 5		1,908 17 10
September	26, 1891..	2,507 17 0	6,743 18 1	1,833 12 2
December	26, 1891..	4,482 8 3		1,878 19 3
March	26, 1892..	2,558 0 1	7,283 9 10	1,973 10 0
June	25, 1892..	4,886 4 6		2,212 16 0
Totals		76,175 1 9	75,045 13 6	44,677 8 2

* Twenty-one weeks.

TAILORING FACTORY.

EXPENSES AND NET PROFIT.

Rate per Cent.	Net Profit on Production.	Rate per Cent.	Net Loss.	Rate per Cent.
	£ s. d.		£ s. d.	
74.71	1 11 2	0.23	.....	.....
71.21	34 9 10	6.27	.....	.....
74.67	.....	.....	15 9 5	2.77
74.80	.....	.....	7 2 10	1.08
66.48	.....	.....	0 8 2	.....
65.51	13 14 9	2.80	.....	.....
74.11	.....	.....	1 16 4	0.2
73.37	15 1 0	2.37	.....	.....
53.70	18 9 9	2.14	.....	.....
64.45	.....	.....	38 15 8	5.74
58.59	54 17 5	6.44	.....	.....
60.08	58 3 2	6.12	.....	.....
59.45	5 19 5	0.51	.....	.....
65.78	.....	.....	4 1 11	0.35
55.22	38 14 11	2.57	.....	.....
57.51	15 13 10	0.99	.....	.....
66.38	.....	.....	36 17 2	1.68
58.34	21 3 11	1.32	.....	.....
59.64	111 17 4	4.90	.....	.....
66.52	.....	.....	139 11 0	7.21
65.44	.....	.....	68 18 3	3.51
63.65	42 14 2	2.48	.....	.....
59.94	109 15 2	8.16	.....	.....
63.73	167 6 10	7.58	.....	.....
59.30	189 7 3	7.51	.....	.....
67.76	84 0 11	4.70	.....	.....
59.12	241 16 2	9.84	.....	.....
65.11	142 3 3	7.35	.....	.....
51.34	467 1 9	14.44	.....	.....
56.77	646 2 7	10.02	.....	.....
54.23	699 16 9	9.10	.....	.....
59.46	550 6 9	9.15	.....	.....
55.02	736 18 7	10.92	.....	.....
57.47	867 10 0	11.90	.....	.....
59.53	5,334 16 8	.....	313 0 9	0.41
	313 0 9	.....	
	5,021 15 11	6.69		

PRODUCTIVE DEPARTMENT.

QUARTERLY STATEMENT SHOWING

Quarter Ending		Transferred.			Production.			Expenses on Production.		
		£	s.	d.	£	s.	d.	£	s.	d.
November	4, 1882..	201	11	0	201	11	0	159	13	10
February	3, 1883..	207	9	10	207	9	10	176	16	1
May	5, 1883..	208	8	0	208	8	0	171	5	8
August	4, 1883..	168	1	11	168	1	11	147	14	11
November	3, 1883..	175	13	4	175	13	4	159	3	1
February	2, 1884..	225	16	1	225	16	1	188	4	5
May	3, 1884..	234	2	3	234	2	3	193	8	0
August	2, 1884..	178	18	8	178	18	8	161	13	5
November	1, 1884..	231	2	7	231	2	7	200	15	11
January	31, 1885..	294	9	10	294	9	10	244	0	8
May	2, 1885..	474	7	1	474	7	1	256	1	5
August	1, 1885..	303	19	5	303	19	5	182	7	11
October	31, 1885..	334	11	4	334	11	4	202	10	8
January	30, 1886..	355	4	8	355	4	8	216	10	6
May	1, 1886..	409	10	4	409	10	4	245	3	7
July	31, 1886..	422	4	4	422	4	4	252	13	2
December	25, 1886..	705	17	7	705	17	7	418	5	3
March	26, 1887..	391	17	6	391	17	6	248	3	1
June	25, 1887..	400	7	4	400	7	4	235	18	8
September	24, 1887..	343	6	10	343	6	10	228	16	4
December	31, 1887..	496	4	8	514	14	4	320	12	8
March	31, 1888..	517	4	1	510	6	9	314	13	9
June	30, 1888..	557	17	2	564	7	9	377	0	4
September	29, 1888..	605	11	11	606	7	8	410	5	2
December	29, 1888..	691	7	4	699	12	10	475	8	0
March	30, 1889..	765	6	11	753	8	2	443	10	7
June	29, 1889..	677	5	1	677	7	0	429	14	6
September	28, 1889..	650	4	0	643	7	8	406	11	7
December	28, 1889..	705	1	8	730	5	7	448	10	7
March	29, 1890..	674	5	11	1,357	11	9	409	13	6
June	28, 1890..	695	7	3				431	7	9
September	27, 1890..	614	9	2	1,495	2	10	431	0	2
December	27, 1890..	874	10	9				509	0	0
March	28, 1891..	608	3	7	1,687	17	8	475	0	10
June	27, 1891..	1,059	13	5				523	3	3
September	26, 1891..	566	17	11	1,666	15	3	471	3	6
December	26, 1891..	1,155	17	3				577	11	4
March	26, 1892..	637	4	9	1,570	7	10	490	16	11
June	25, 1892..	909	19	9				530	6	5
Totals		19,729	12	6	19,744	13	0	12,764	17	5

SHIRT FACTORY.

EXPENSES AND NET PROFIT.

Rate per Cent.	Net Profit on Production.	Rate per Cent.	Net Loss.	Rate per Cent.
	£ s. d.		£ s. d.	
79·10	21 9 4	10·44	....	....
85·02	8 5 6	3·86	....	....
82·21	5 7 8	2·40	....	....
87·5	7 16 9	4 76	....	....
90·85	0 9 3	..	....	....
83·55	9 18 8	4·44	....	....
82·47	7 16 10	2 99	....	....
90·44	..	..	8 16 10	4·91
86·57	..	..	7 9 9	3·22
83·02	13 1 3	4·42	....	....
54·00	37 16 7	7·80	....	....
60·06	23 18 5	7·78	....	....
60·47	14 9 3	4·19	....	....
60·84	10 18 9	3·09	....	....
59·9	14 10 1	3·42	....	....
59·71	26 7 6	6·16	....	....
59·29	20 7 0	2·83	....	....
63·26	8 10 8	2·04	....	....
59·00	8 8 3	2·00	....	....
66·76	3 11 6	1·02	....	....
62·25	19 15 0	3·83	....	....
61·57	9 10 1	1·76	....	....
66·84	1 11 10	..	....	....
67·65	....	..	12 9 7	1·98
67·85	....	..	11 17 10	1·71
58·80	69 7 11	9·16	....	....
63·36	30 7 9	4·43	....	....
63·14	58 19 9	9·17	....	....
61·37	51 13 11	7·12	....	....
61·09	122 10 9	8·99	....	....
62·87	131 5 9	8·76	....	....
59·16	142 5 10	8·41	....	....
62·90	192 18 10	11·58	....	....
65·03	141 6 3	8·98	....	....
64·64	1,214 17 0	..	40 14 0	0·20
	40 14 0	..		
	1,174 3 0	5·94		

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.

SLOP FACTORY.

Quarter Ending	Transferred.	Production.	Expenses.	Rate per Cent.	Net Profit.	Rate per Cent.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	
* December 27, 1890	84 19 9	104 0 10	97 11 11	93·80	+46 7 9	44·58
March 28, 1891	508 13 4	1,322 12 7	424 10 9	67·32	95 4 1	7·18
June 27, 1891	778 19 4		465 18 11			
September 26, 1891	479 9 10	1,211 19 8	415 18 10	71·53	40 2 6	3·30
December 26, 1891	709 17 1		451 2 9			
March 26, 1892	567 2 11	1,272 2 11	429 12 7	70 28	68 11 9	5·34
June 25, 1892	747 17 8		465 3 2			
Totals	3,876 19 11	3,910 16 0	2,749 18 11	70·31	157 10 7	4·01

* Three Weeks only. + Loss.

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.
MANTLE FACTORY.

Quarter Ending	Transferred.	Production.	Expenses.	Rate per Cent.	Net Loss.	Rate per Cent.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	
March 28, 1891	268 15 9	1,005 7 3	275 8 11	73.03	86 17 4	8.64
June 27, 1891	725 14 5		458 17 5			
Sept. 26, 1891	534 5 6	1,352 19 4	398 15 3	64.30	52 3 0	3.84
Dec. 26, 1891	795 15 6		471 8 3			
March 26, 1892	413 15 3	1,165 4 11	399 19 2	69.44	107 17 7	9.26
June 25, 1892	744 4 5		409 13 8			
Totals	3,482 10 10	3,523 11 6	2,414 2 8	68.52	246 17 11	7.01

BOOT AND SHOE

QUARTERLY STATEMENT SHOWING

Quarter Ending		Transferred.			Production.			Expenses.		
		£	s.	d.	£	s.	d.	£	s.	d.
May	2, 1885..	3,298	16	7	3,298	16	7	1,183	10	5
August	1, 1885..	5,222	6	4	5,222	6	4	1,642	8	2
October	31, 1885..	5,283	9	3	5,283	9	3	1,686	10	3
January	30, 1886..	5,456	19	0	5,456	19	0	1,723	7	0
May	1, 1886..	6,535	2	5	6,535	2	5	2,010	0	5
July	31, 1886..	6,217	1	1	6,217	1	1	2,101	11	6
*December	25, 1886..	15,607	4	2	15,607	4	2	4,290	7	0
March	26, 1887..	6,105	16	5	6,105	16	5	2,161	8	4
June	25, 1887..	8,757	13	0	8,757	13	0	2,796	10	5
September	24, 1887..	9,100	13	10	9,100	13	10	2,882	11	1
December	31, 1887..	9,892	17	1	9,870	13	7	3,198	1	6
March	31, 1888..	7,857	5	5	8,162	3	4	2,759	2	8
June	30, 1888..	6,564	3	5	7,293	17	3	2,747	5	0
September	29, 1888..	11,007	15	8	11,335	14	3	3,813	4	4
December	29, 1888..	12,744	8	7	12,575	18	10	4,243	14	6
March	31, 1889..	9,242	10	9	10,446	4	1	3,691	18	3
June	29, 1889..	13,064	4	11	14,383	1	10	4,649	4	7
September	28, 1889..	14,117	19	7	14,256	5	10	5,174	0	5
December	28, 1889..	13,205	8	3	15,000	9	10	5,407	3	1
March	29, 1890..	10,964	14	3	28,621	13	5	4,854	0	3
June	28, 1890..	16,035	18	0				5,611	6	2
September	27, 1890..	14,536	8	8	30,503	13	1	5,555	17	10
December	27, 1890..	15,871	2	0				5,824	0	0
March	28, 1891..	12,981	3	3	36,406	9	8	5,794	18	7
June	27, 1891..	19,068	3	9				6,789	1	8
September	26, 1891..	16,072	6	8	36,629	1	10	6,248	2	6
December	26, 1891..	23,005	11	5				7,194	6	9
March	26, 1892..	16,447	13	2	38,374	15	3	6,629	12	5
June	25, 1892..	20,794	11	8				7,512	4	7
Totals.....		335,059	8	7	345,445	4	2	120,175	9	8

* Twenty-one weeks.

FACTORY.

EXPENSES AND NET PROFIT.

Rate per Cent on Production.	Net Profit on Production.	Rate per Cent on Production.	Net Loss.	Rate per Cent.
	£ s. d.		£ s. d.	
35.87	....	..	47 9 10	1.42
31.44	65 14 11	1.24	....	....
31.91	175 4 4	3.31	....	....
31.57	81 8 8	1.48	....	....
30.75	165 13 2	2.52	....	....
33.77	215 3 5	3.45	....	....
27.49	651 19 9	4.17	....	....
35.39	60 12 7	0.98	....	....
31.92	63 15 4	0.72	....	....
31.66	393 16 3	4.31	....	....
32.40	619 19 8	6.28	....	....
33.80	405 4 1	4.96	....	....
37.66	282 10 0	3.86	....	....
33.64	450 13 11	3.97	....	....
33.74	621 9 0	4.93	....	....
35.32	430 0 7	4.11	....	....
32.32	611 3 0	4.24	....	....
36.29	606 7 3	4.28	....	....
36.04	909 12 1	6.06	....	....
36.56	1,867 10 10	6.52	....	....
37.30	1,744 10 11	5.71	....	....
34.56	1,635 2 2	4.49	....	....
36.69	1,996 18 7	5.45	....	....
36.85	2,115 17 8	5.51	....	....
34.78	16,164 8 2	..	47 9 10	0.01
	47 9 10	..		
	16,116 18 4	4.66		

PRODUCTIVE DEPARTMENTS.
CABINET

Quarter Ending		Transferred.			Production.			Expenses.		
		£	s.	d.	£	s.	d.	£	s.	d.
January	31, 1885..	144	3	9	144	3	9	102	19	9
May	2, 1885..	338	8	1	338	8	1	179	12	0
August	1, 1885..	388	0	5	388	0	5	228	3	10
October	31, 1885..	417	17	7	417	17	7	214	13	5
January	30, 1886..	361	0	0	361	0	0	219	0	5
May	1, 1886..	371	8	1	371	8	1	209	0	6
July	31, 1886..	504	6	6	504	6	6	276	16	0
*December	25, 1886..	994	19	4	994	19	4	499	14	10
March	26, 1887..	620	2	1	620	2	1	312	11	11
June	25, 1887..	582	12	0	582	12	0	326	19	9
September	24, 1887..	656	13	0	656	13	0	329	10	7
December	31, 1887..	629	9	6	697	19	11	410	6	10
March	31, 1888..	457	14	8	651	11	8	330	15	11
June	30, 1888..	960	9	2	801	0	9	384	2	8
September	29, 1888..	1,194	4	6	1,269	8	0	680	17	9
December	29, 1888..	1,477	10	8	1,601	12	11	914	6	0
March	30, 1889..	1,445	7	0	1,612	15	3	885	4	8
June	29, 1889..	1,830	0	8	1,797	2	9	950	10	7
September	28, 1889..	1,784	1	6	1,707	6	11	927	14	11
December	28, 1889..	2,594	18	11	2,654	14	7	1,258	14	10
March	29, 1890..	2,626	4	5	6,116	7	10	1,520	7	11
June	28, 1890..	3,511	12	4				1,740	10	6
September	27, 1890..	2,933	19	11	7,312	2	1	1,674	16	6
December	27, 1890..	4,266	18	5				2,180	11	7
March	28, 1891..	2,682	8	8	7,340	2	9	1,791	8	2
June	27, 1891..	4,294	4	10				2,140	1	1
September	26, 1891..	3,364	10	4	7,806	11	0	1,868	19	0
December	26, 1891..	4,338	3	11				2,196	7	4
March	26, 1892..	3,182	12	0	7,784	17	1	1,973	16	7
June	25, 1892..	4,374	4	4				2,277	5	11
Totals....		53,328	6	7	54,533	4	4	29,006	1	9

* Twenty-one weeks.

QUARTERLY STATEMENT.

WORKSHOP.

Rate per Cent.	Net Profit.	Rate per Cent.	Net Loss.	Rate per Cent.
	£ s. d.		£ s. d.	
71.52	..	..	10 6 0	6.94
52.95	4 1 11	1.18	..	..
58.76	16 14 8	4.12	..	..
51.31	9 19 8	2.39	..	..
60.66	15 14 5	4.30	..	..
56.06	0 6 11	..	..	..
54.76	14 7 6	2.77	..	..
50.15	69 3 5	6.93	..	..
50.32	18 1 0	2.90	..	..
56.18	6 18 3	1.20	..	..
50.15	15 11 6	2.28	..	..
58.73	27 0 3	3.86	..	..
50.69	24 9 8	3.68	..	..
47.94	12 7 7	1.49	..	..
53.58	..	..	115 11 2	7.38
57.08	58 1 10	3.62	..	..
54.90	30 0 1	1.24	..	..
52.86	19 8 6	1.05	..	..
54.30	20 16 0	1.23	..	..
47.40	113 13 11	4.25	..	..
53.30	478 5 4	7.81	..	..
52.72	420 19 9	5.75	..	..
53.55	..	..	40 12 10	0.54
52.07	215 6 10	2.75	..	..
54.61	216 4 7	2.77	..	..
53.19	1,807 13 7	..	166 10 0	0.30
	166 10 0	..		
	1,641 3 7	3.00		

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.
BRUSH FACTORY.

Quarter Ending	Transferred.	Production.	Expenses on Production.	Rate per Cent.	Net Profit on Production.	Rate per Cent.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	
March 29, 1890	483 10 9	1,510 1 0	238 15 2	39·66	144 15 1	9·53
June 28, 1890	874 8 11					
September 27, 1890	753 10 9	2,295 16 10	404 1 1	36·16	121 13 11	5·27
December 27, 1890	1,015 13 6					
March 28, 1891	903 7 9	2,244 13 0	412 1 10	40·68	168 15 11	7·48
June 27, 1891	1,099 18 11					
September 26, 1891	735 0 3	1,849 7 7	416 0 1	43·10	88 8 1	4·75
December 26, 1891	1,059 12 9					
March 26, 1892	906 14 9	1,975 19 11	387 15 8	42·46	67 8 4	3·39
June 25, 1892	1,185 11 7					
Totals	9,017 9 11	9,875 18 4	3,978 19 3	40·29	591 1 4	5·98

PRINTING WORKSHOP.

QUARTERLY STATEMENT.

Quarter Ending	Transferred.	Production.	Expenses on Production.	Rate per Cent.	Net Profit on Production.	Rate per Cent.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	
December 31, 1887	649 14 2	653 15 5	347 14 7	53.13	41 19 10	6.43
March 31, 1888	698 16 9	692 5 2	350 5 6	50.57	44 14 0	6.35
June 30, 1888	767 14 9	783 8 7	355 11 1	45.33	72 16 5	9.19
September 29, 1888	759 11 6	760 19 5	369 12 1	48.55	90 6 5	11.84
December 29, 1888	888 14 4	884 19 4	405 8 8	45.81	78 5 7	8.82
March 30, 1889	812 18 0	846 17 10	469 9 4	55.43	43 9 6	5.08
June 29, 1889	957 11 10	995 2 4	530 13 9	53.26	71 16 7	7.13
September 28, 1889	991 9 2	1,027 3 8	510 0 0	49.65	77 14 6	7.59
December 28, 1889	1,093 8 5	1,116 8 1	616 4 6	55.19	68 19 11	6.18
March 29, 1890	1,307 11 4	3,170 2 11	689 7 1	48.10	291 9 3	9.17
June 28, 1890	1,785 12 1		837 4 9			
September 27, 1890	1,981 12 2	4,008 9 9	861 11 8	44.16	200 9 5	4.99
December 27, 1890	2,167 4 9		908 19 5			
March 28, 1891	2,080 9 8	4,074 16 11	913 0 9	44.10	245 16 10	6.03
June 27, 1891	2,016 0 0		883 18 3			
September 26, 1891	1,970 2 5	5,084 10 0	942 18 1	40.51	472 6 10	9.28
December 26, 1891	2,951 12 6		1,117 0 4			
March 26, 1892	2,408 17 7	5,867 10 10	1,147 12 6	40.99	596 19 0	10.17
June 25, 1892	3,321 8 10		1,257 17 1			
Totals	29,610 10 3	29,966 10 3	13,514 9 5	45.09	2,397 4 1	8.00

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.
PRESERVE WORKS.

Quarter Ending	Transferred.	Production.	Expenses on Production.	Rate per Cent.	Net Profit on Production.	Rate per Cent.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	
*June 28, 1890	375 10 6	798 8 7	93 3 9	11·65	+15 5 1	1·89
September 27, 1890	6,568 13 9		529 3 8			
December 27, 1890	4,256 1 5	12,017 16 0	413 13 1	7·84	696 11 5	5·79
March 28, 1891	5,165 12 2		520 10 4	14·00	592 6 2	7·77
June 27, 1891	3,467 19 0	7,615 18 9	545 10 5			
September 26, 1891	12,893 19 9		1,095 12 4	6·78	1,147 2 0	4·02
December 26, 1891	7,840 0 11	28,495 2 7	838 19 4			
March 26, 1892	13,228 1 9	10,410 16 11	1,010 4 4	19·30	1,063 13 3	10·21
June 25, 1892	5,542 3 1		999 18 1			
Totals	59,338 2 4	59,338 2 10	6,046 15 4	10·18	3,484 7 9	5·87

* Fourteen Days. † Loss.

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.
CONFECTIONERY WORKS.

Quarter Ending	Transferred.		Production.		Expenses on Production.		Rate per Cent.	Net Profit on Production.		Rate per Cent.
	£	s. d.	£	s. d.	£	s. d.		£	s. d.	
June 27, 1891	846	1 1	962	2 0	133	15 9	13.91	18	15 7	1.97
September 26, 1891	978	6 6	2,316	5 3	143	12 10	12.04	76	15 3	3.28
December 26, 1891	1,341	15 2			135	12 3				
March 26, 1892	967	13 7	2,073	11 0	138	18 10	14.23	45	6 7	2.17
June 25, 1892	1,218	1 11			156	13 3				
Totals	5,351	18 3	5,351	18 3	708	12 11	13.23	140	17 5	2.63

PRODUCTIVE DEPARTMENTS.—QUARTERLY STATEMENT.
TOBACCO FACTORY.

Quarter Ending	Transferred.	Production.	Expenses.	Rate per Cent.	Net Profit on Production.	Rate per Cent.	Net Loss.	Rate per Cent.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.		£ s. d.	
June 27, 1891 .....	....	....	38 0 3	....	....	....	41 11 0	....
Sept. 26, 1891	3,144 18 9	21,326 17 2	587 19 2	7·81	693 2 11	3·25	....	....
Dec. 26, 1891	12,365 5 11		1,079 0 1					
March 26, 1892	11,909 10 1	26,056 14 0	1,110 10 9	8·65	713 4 9	....	....	....
June 25, 1892	14,037 15 7		1,143 7 6					
Totals.....	41,457 10 4	47,383 11 2	3,958 17 9	8·35	1,406 7 8	2·88	41 11 0	0·08
					41 11 0			
					1,364 16 8			

Bonus on Labour.

Bonus on wages to employés has been paid from quarter ending November 19th, 1870. Till November, 1884, the rate paid on wages per £ was double the rate per £ of dividend paid on members' purchases; but on the latter date the arrangement which is now in operation was passed. This rule is to the effect that employés in the distributive departments receive a similar rate per £ on their wages as is paid per £ on members' purchases, and the workers in the productive departments are paid in accordance with the profits made in those departments in the aggregate in the following manner:—The net profit, after meeting all charges, including interest on capital employed, is divided at so much per £ equally between purchases and wages earned.

The following statement shows amount paid to employés as bonus on labour, from November 19th, 1870, to June 25th, 1892:—

				Amount.			Average Rate per £.		
				£	s.	d.	s.	d.	
Quarter ending November 19, 1870				....	5	11	0	....	0 8
Year	„	„	18, 1871	....	40	10	0	....	0 10½
„	„	„	16, 1872	....	52	7	0	....	0 9½
„	„	„	15, 1873	....	90	1	8	....	0 9½
„	„	„	14, 1874	....	116	9	0	....	0 8½
„	„	„	13, 1875	....	109	15	4	....	0 8
„	„	„	4, 1876	....	108	13	4	....	0 8
„	„	„	3, 1877	....	121	10	0	....	0 8
„	„	„	2, 1878	....	147	17	0	....	0 8
„	„	„	2, 1879	....	203	3	0	....	0 9½
„	„	October	30, 1880	....	322	9	3	....	1 1
„	„	November	5, 1881	....	368	3	8	....	1 0
„	„	„	4, 1882	....	453	9	1	....	0 11
„	„	„	3, 1883	....	542	3	0	....	0 11½
„	„	„	1, 1884	....	484	2	6	....	0 9½
„	„	October	31, 1885	....	483	13	1	....	0 6¾
„	„	December	25, 1886	....	873	0	6	....	0 6½ Productive.

		Distributive Amount.			Rate per £.		Productive Amount.			Rate per £.	
		£	s.	d.	s.	d.	£	s.	d.	s.	d.
Year ending Dec.	31, 1887	..	603	0	2	..	0	6¾	..	315	2
„	„	„	29, 1888	..	683	12	1	..	0	6¼	..
„	„	„	28, 1889	..	833	16	10	..	0	6½	..
„	„	„	27, 1890	..	1,139	6	10	..	0	7	..
„	„	„	26, 1891	..	1,208	9	3	..	0	6¾	..
Six months,,	June 25, 1892	..	841	11	5	..	0	7	..	929	1

Total amount paid as bonus on labour to 25th June, 1892..£16,277 10 1

Employés.

NUMBER OF EMPLOYÉS, OCTOBER 1ST, 1892.

DISTRIBUTIVE DEPARTMENTS.

		Collectiv Totals.
Counting House—General	Glasgow	96
Grocery	,,	69
Stationery	,,	4
Saddlery	,,	7
Ham Curers	,,	20
Potatoes	,,	2
Cattle Buyer	,,	1
Sugar Forwarding	,,	1
Drapery—General	,,	118
Mantles	,,	6
Millinery	,,	4
Furniture	,,	50
Boots	,,	29
Clarence Street Dining-room	,,	4
Shieldhall Dining-rooms	,,	14
Sausage Work	,,	11
Carting	,,	44
		480
Leith		43
Kilmarnock		14
Dundee		4
		61

PRODUCTIVE DEPARTMENTS, SHIELDHALL.

General	4
Boot Factory, Shieldhall	493
„ „ Bridgeton	128
Tailoring Factory	236
Printing	119
Cabinet	197
	1,177
Carried forward	1,718

NUMBER OF EMPLOYÉS, OCTOBER 1ST, 1892.PRODUCTIVE DEPARTMENTS, SHIELDHALL.—*Con.*

	Collective Totals.
Brought forward	1,718
Preserves and Confections.....	166
Tobacco	74
Knitting	41
Slop	53
Mantle	53
Shirt	85
Coffee Essence	8
Chemical	5
Mechanic	38
	— 523

BUILDING DEPARTMENT.

GLASGOW—Joiners	81	
Builders	10	
Bricklayers	9	
Hewers	17	
Labourers	45	
Coopers	1	
Plasterers	3	
Slaters	2	
Causeway Layers ..	3	
Plumbers	12	
Painters	21	
Electricians	2	
	—	206
LEITH—Joiners	2	
Builders.....	47	
Hewers	81	
Labourers	51	
	—	181
	—	
Total.....		2,628

SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.



FOR the first time we insert a statement in the "Annual," showing the number of members in 243 societies, members of the Wholesale, the capital invested in those societies, and the capital invested by them in the Wholesale. Also, their purchases from the several departments of the Wholesale for the year 1891, their total purchases for the year, and the percentage of that trade done with the Wholesale. We think it as well to explain that the purchases entered as being made by societies are taken from the sales shown in the last Congress Report, less 20 per cent. We are aware that this deduction in some cases will not give the actual difference to be deducted from selling to arrive at cost price, but for want of means and time to obtain the exact information, we think it will be admitted that on the whole the deduction is a fair one. We also deem it right to point out that in the case of some societies (such as most of the Glasgow stores) which are members of federated societies, the purchases made from the Wholesale may not appear so favourable as in the case of those stores which do all the trade for their members direct. This fact should be kept in mind in the event of comparisons being made.

In examining the totals of this statement it will be seen, in the first place, that while societies are supposed to take one share in the Wholesale for each of their own members, the number of shares held in the Wholesale falls considerably short of the membership reported to the Congress. It is also quite evident that a considerable increase could be made in the trade the societies are doing with the Wholesale. We commend a careful examination of the statement to the attention of the various committees concerned. Should the result in some cases not be so favourable to their society as it would have been had we been able to ascertain the exact purchases for the year, we crave their indulgence, and would refer them to the method we have had to adopt in preparing the statement.

We have also entered statements of a similar nature of the federated societies, societies who purchased to a greater or lesser extent during the year, and also of societies which have not done any business. The various statements afford sufficient evidence that a considerable field lies before the Wholesale for a large extension of business.



SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

Number.	NAME OF SOCIETY.	No. of Members as per Congress Report.	No. of Shares in Scottish Co-op. Wholesale Society.	Amount of Share Capital as per Congress Report. £	Amount of Loan Capital as per Congress Report. £	Share Capital in Wholesale Society. £	Amount of Loan Capital in Wholesale Society. £	PURCHASED FROM WHOLESALE SOCIETY.					Estimated Total Purchases, being 20% less than Sales shown in Congress Report. £	Percentage of Purchases from Wholesale to Total Purchases.	Number.
								Grocery.	Drap'ry	Boots.	Furni- ture.	Total.			
1	Alva and Branches.....	800	692	9,561	282	519	1,092	£ 8,231	£ 1,155	£ 868	£ 280	£ 10,534	18,989	55.5	1
2	Alloa	2,400	2,200	45,138	2,555	1,650	12,557	29,494	5,874	1,784	1,429	38,581	65,160	59.2	2
3	Alva Baking	725	409	5,658	48	306	538	4,977	...	...	...	4,977	6,776	73.4	3
4	Auchterarder	184	200	1,193	762	150	192	1,732	473	18	61	2,284	2,880	79.3	4
5	Avonbank	253	200	859	988	150	320	3,416	142	14	144	3,716	6,356	58.4	5
6	Armadales	536	250	12,504	...	187	7,795	13,019	2,270	585	1,162	17,086	26,040	65.4	6
7	Arbroath, High Street	1,008	1,000	7,955	2,056	750	1,306	13,162	681	240	1,164	14,247	19,303	73.8	7
8	Ardrossan	420	400	838	3,271	300	724	5,478	970	408	305	7,161	10,877	65.8	8
9	Abernethy	120	120	100	...	68	2	213	...	...	...	213	1,184	18.0	9
10	Abernethy	65	72	98	96	36	6	674	35	...	5	714	1,091	65.4	10
11	Arbroath Equitable	990	1,000	7,512	...	7.0	60	4,030	298	...	25	4,353	13,372	32.5	11
12	Auchinleck	200	195	390	...	124	31	3,289	141	285	154	3,869	5,360	72.2	12
13	Auchtermuchty	294	260	1,524	200	42	4	330	64	9	70	473	5,304	8.9	13
14	Barrhead	1,724	1,650	5,468	23,292	1,237	3,911	35,697	4,470	2,558	1,150	43,875	49,104	89.4	14
15	Bo'ness	1,135	1,300	13,685	712	975	5,694	21,669	2,190	1,041	885	25,785	32,470	79.4	15
16	Bathgate	688	700	9,492	...	525	4,060	13,516	1,342	456	281	15,595	22,283	70.0	16
17	Busby	350	340	830	3,746	255	829	5,743	692	405	252	7,092	12,774	55.5	17
18	Beith	673	510	1,394	5,957	382	1,310	7,979	982	206	405	9,572	15,750	60.8	18
19	Buckhaven	571	550	6,304	...	412	1,055	7,421	2,084	299	129	9,933	18,911	52.5	19
20	Brechin Equitable	1,581	1,556	25,224	...	1,167	5,718	14,689	3,051	1,201	524	19,265	30,086	64.0	20
21	Bonnybridge	536	500	6,944	...	375	548	10,961	2,121	1,207	583	14,872	21,486	69.2	21
22	Bonnyrigg	325	370	4,804	740	277	852	5,296	922	256	193	6,667	9,629	69.2	22
23	Blairdardie	78	50	289	...	37	143	1,923	169	102	84	2,278	3,193	71.3	23
24	Bridge of Weir	170	175	1,390	...	131	698	2,495	601	350	224	3,680	5,371	68.5	24
25	Broxburn	1,070	950	13,303	...	712	6,695	29,169	4,243	1,287	1,029	35,728	45,350	78.8	25
26	Bannockburn	585	550	9,802	...	412	3,565	6,454	2,699	1,023	244	10,420	18,463	56.4	26
27	Bauchory	400	226	1,289	...	36	3	213	207	15	18	453	4,626	9.8	27
28	Burnbank	320	250	683	1,064	187	364	4,280	826	325	381	5,812	10,627	54.7	28
29	Blantyre	430	350	1,722	...	262	632	7,030	1,379	574	477	9,460	13,562	69.8	29
30	Bridge of Allan	82	100	213	...	75	122	1,161	221	100	68	1,550	2,578	60.1	30
31	Burntisland	268	230	2,047	98	172	163	5,514	1,034	381	157	7,090	8,163	86.8	31
32	Bellsbill and Mossend	151	170	4,094	397	127	292	2,003	304	94	110	2,511	3,219	78.0	32
33	...	1,108	1,050	13,112	...	358	49	9,133	1	...	10	9,143	10,194	89.7	33

36	Carluke	318	3,182	314	35	140	1,144	22	1	22	1,189	2,427	49.0	37
37	Cathcart	70	88	1,986	75	899	3,903	779	299	482	5,464	8,122	67.2	38
38	Cadder	100	306	1,042	366	190	7,846	1,909	1,080	371	11,206	17,667	63.4	39
39	Camelon	448	6,301	1,042	366	246	4,890	781	450	269	6,390	7,315	87.3	40
40	Camelstair Junction	200	1,320	585	150	1725	45,521	9,164	8,269	2,246	60,200	89,583	67.2	41
41	Coatbridge	2,300	30,114	9,787	1,725	7,750	45,521	1,630	436	566	8,054	13,216	60.9	42
42	Coatbridge	200	1,265	2,774	150	1,171	5,422	1,630	436	566	8,054	13,216	60.9	43
43	Chapelhall	125	790	116	93	364	727	210	81	96	1,064	1,896	56.1	44
44	Chapelton	80	300	26	60	134	852	279	22	72	1,225	2,270	54.0	45
45	Calderbank	105	2,119	...	78	818	8,839	695	205	293	5,032	9,658	52.1	46
46	Cambusbarron	140	1,762	672	105	775	3,485	412	244	104	4,195	5,967	70.3	47
47	Coalton of Wemyss	82	660	...	61	225	1,011	175	17	7	1,210	3,103	89.0	48
48	Crofthead	556	1,443	6,581	412	4,249	15,154	2,952	651	812	19,569	22,067	88.7	49
49	Cumbernauld	120	1,525	...	90	142	1,711	296	212	74	2,293	4,053	56.6	50
50	Cleland	400	3,275	...	300	441	8,859	1,197	269	402	10,727	15,562	69.0	51
51	Coalsnaughton	154	2,628	1,011	115	515	3,572	763	23	121	3,596	9,570	37.6	52
52	Clackmannan	215	3,844	...	161	599	2,073	1,073	484	99	2,403	18,573	12.9	53
53	Cowdenbeath	300	7,391	...	225	25	2,423	380	...	...	2,939	3,484	84.4	54
54	Crief	268	410	21	201	363	2,007	268	91	164	2,530	3,577	70.7	55
55	Carronbridge	240	771	10	180	1,189	11,141	1,280	807	501	13,729	17,648	77.8	56
56	Clydebank	530	2,384	4,364	397	1,907	36,212	8,295	3,948	1,592	50,047	63,953	78.2	57
57	Cowairs	1,800	8,760	1,938	1,350	534	6,044	620	247	207	7,118	10,889	65.4	58
58	Cambuslang	120	640	575	90	556	3,722	387	...	276	4,385	6,267	70.0	59
59	Carrick Provind	220	2,482	...	165	30	2,396	94	215	27	2,732	3,287	83.1	60
60	Campbeltown	150	366	366	112	18	326	22	37	2	387	1,908	29.6	61
61	Condorrat	66	160	231	49	33	684	11	...	7	702	2,870	24.5	62
62	Chryston	100	452	189	75	9	996	115	100	11	1,222	1,724	70.9	63
63	Cupar	115	242	...	64	29	2,633	498	265	62	3,458	6,496	53.2	64
64	Carron	163	902	...	79	3,225	60,634	10,560	2,766	1,287	75,247	127,555	59.0	65
65	Dunfermline	4,300	54,772	25,100	1,500	12,565	51,679	9,156	3,096	2,247	66,178	88,667	74.6	66
66	Dalziel	2,000	4,069	3,276	420	12,649	9,334	2,142	498	438	15,191	21,724	81.7	67

SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

Number.	NAME OF SOCIETY.	No. of Members as per Congress Report.	No. of Shares in Scottish Co-op. Wholesale Society.	Amount of Share Capital as per Congress Report. £	Amount of Loan Capital as per Congress Report. £	Share Capital in Wholesale Society. £	Amount of Loan Capital in Wholesale Society. £	PURCHASED FROM WHOLESALE SOCIETY.				Estimated Total Purchases, being 20% less than Congress Report. £	Percentage of Purchases from Wholesale to Total Purchases.	Number.
								Grocery.	Drap'ry	Boots.	Furni- ture.	Total.		
83	East Kilbride	133	112	247	742	84	168	£ 1,250	£ 139	£ 73	£ 32	£ 1,494	45.5	83
84	Edinburgh Roperie	139	136	218	54	102	59	3,191	19	119	18	3,347	63.8	84
85	Earlston	58	69	274	...	51	36	603	18	24	32	677	57.9	85
86	Edenvale	62	61	362	...	45	13	683	103	10	28	830	50.7	86
87	Falkland	122	21	546	...	15	105	730	12	...	...	742	32.5	87
88	Fergushill	171	180	1,836	...	135	431	2,729	259	140	107	3,235	59.8	88
89	Feus, Auchterarder	130	128	476	...	96	210	1,325	108	...	36	1,469	68.7	89
90	Galston	640	500	7,495	...	375	4,638	9,823	1,248	665	232	11,968	51.3	90
91	Grahamston and Bainsford	1,115	1,000	16,573	...	750	8,850	13,662	5,426	2,530	878	22,496	56.0	91
92	Grangemouth	932	900	17,165	3,382	675	10,252	17,572	4,018	1,639	1,032	24,261	74.8	92
93	Greenock Industrial	289	350	1,885	...	262	234	4,564	1,080	451	311	6,406	80.2	93
94	Greenock East	432	300	1,924	1,546	225	91	8,394	1,584	658	364	11,000	82.0	94
95	Gavieside	90	110	883	...	82	942	1,407	195	...	80	1,682	40.3	95
96	Galashiels Waverley	1,345	1,300	19,933	1,478	975	2,400	17,492	3,757	1,366	686	23,301	51.9	96
97	Greenock Central	1,227	1,100	5,100	1,445	825	704	23,509	3,682	1,765	945	29,901	88.4	97
98	Glespin	107	100	709	...	75	149	1,462	42	127	103	1,734	68.9	98
99	Galashiels Store Co.	1,406	1,000	16,645	5,500	750	786	9,080	2,831	862	368	13,141	33.6	99
100	Gallatown	232	200	200	...	150	245	2,270	199	...	1	2,470	66.0	100
101	Gilbertfield	250	200	696	1,001	150	111	3,435	219	252	319	4,225	55.8	101
102	Glenboig	119	130	412	411	97	392	1,974	118	141	30	2,263	36.0	102
103	Gorebridge	442	200	1,449	203	150	84	7,071	1,171	292	137	8,671	43.2	103
104	Glengowan	180	116	420	730	87	156	2,482	534	306	202	3,524	55.1	104
105	Glenbuck	128	40	220	876	30	204	1,734	15	113	32	1,894	65.8	105
106	Galashiels Coal Co.	557	300	547	...	38	...	4	5	...	...	9	0.4	106
107	Govan Victualling	201	150	628	...	112	55	1,767	154	23	84	2,028	45.3	107
108	Greengairs	235	150	1,435	...	7	5	65	71	...	62	198	2.2	108
109	Haddington	653	950	874	166	538	32	4,320	544	53	95	5,012	35.1	109
110	Hamilton	332	300	1,494	...	225	438	3,698	1,108	365	339	5,510	57.7	110
111	Hurlford	535	480	5,414	1,080	360	4,495	3,845	753	670	43	5,311	39.7	111
112	Howwood	83	100	200	950	75	405	1,464	196	238	77	1,975	58.3	112
113	Hurlet and Nithill	217	100	546	2,034	75	131	3,475	442	240	244	4,401	56.8	113
114	Hillwood	363	260	1,560	...	195	963	5,939	646	84	113	6,732	73.2	114

117	Hamilton Palace Colliery	120	200	316	100	75	187	1,918	154	126	111	2,311	3,577	61.6
118	Hallside	99	100	316	100	75	187	1,918	482	213	109	3,991	5,415	73.7
119	Holygate	191	160	1,794	160	120	549	3,187	104	16	72	822	1,135	72.4
120	Irvine and Fullarton	55	130	280	160	97	21	630	618	176	117	6,925	9,572	72.3
121	Inverleithen	234	200	2,490	549	150	40	6,014	1,513	1,449	309	17,581	20,885	84.2
122	Johnstone	838	850	2,613	9,551	637	2,500	14,310	1,188	1,474	215	6,474	8,479	76.4
123	Jedburgh	353	350	5,317	....	262	1,018	4,783	1,373	288	342	10,461	18,434	77.9
124	Juniper Green	361	360	4,276	....	270	540	8,167	1,691	579	1,542	48,814	56,974	85.7
125	Kilmarnock	2,551	2,300	36,660	1,146	1,725	4,595	41,692	2,555	889	21	2,972	3,450	86.1
126	Kirkland	103	141	841	545	105	19	2,583	87	113	2	1,084	1,818	59.6
127	Kinross and Vicinity	121	115	217	....	86	78	995	435	....	909	68,834	131,125	52.5
128	Kinning Park	5,937	5,000	14,435	18,669	3,750	2,332	67,465	926	25	311	8,785	12,541	70.0
129	Kilbarchan	377	370	8,722	926	277	1,388	7,218	2,288	330	712	17,283	24,265	71.2
130	Kelty	622	400	11,366	....	300	3,069	13,654	1,199	629	228	5,666	8,752	64.7
131	Kilwinning	299	130	696	458	97	157	3,830	133	409	22	921	1,454	63.3
132	Kinross Equitable	40	37	251	....	27	56	705	1,205	61	390	11,326	17,386	65.1
133	Kirkintilloch	598	550	4,398	355	412	1,006	8,999	235	732	51	1,687	2,800	60.2
134	King's Kettle	202	283	768	235	174	45	1,395	....	6	4	2,911	4,543	64.1
135	Kettle Baking	428	390	1,318	....	292	160	2,907	....	....	64	2,055	5,393	38.1
136	King's Seat	149	139	440	891	104	661	1,484	1,100	374	388	13,500	18,634	72.4
137	Kilbirnie	580	450	6,758	1,320	337	3,055	11,638	....	143	29	1,115	3,000	37.2
138	Kelso	155	170	735	1,200	98	10	943	....	114	92	2,079	4,045	51.4
139	Leadhills	133	64	551	....	48	178	1,802	71	245	271	3,420	7,263	47.1
140	Lennoxton	190	190	1,058	1,442	142	502	2,137	767	546	871	24,992	44,023	56.8
141	Lochgelly	929	700	19,741	....	525	9,855	20,339	3,236	761	273	12,288	15,542	79.1
142	Lanark	686	610	8,110	....	457	3,846	9,659	1,595	639	186	8,146	10,344	78.7
143	Leslie and Prinlows	504	500	5,615	140	375	2,168	5,612	1,709	204	100	3,118	3,315	94.1
144	Leslie Old	224	210	1,411	....	157	479	2,296	518	68	218	4,058	5,796	70.0
145	Laureston	187	130	1,676	200	97	566	3,142	630	....	34	1,252	2,634	47.5
146	Levensseat	76	100	1,018	369	75	834	1,168	50	204	209	4,292	9,215	46.6
147	Linwood	194	180	821	1,615	135	683	3,149	730	410	121	9,578	13,887	69.0
148	London Road	668	650	1,248	1,202	487	89	8,303	744	160	191	3,223	6,086	53.0
149	Longcroft	195	160	2,699	....	120	650	2,377	495	10	97	1,405	2,014	69.8
150	Lochwinnoch	117	135	887	....	101	159	1,217	81	2,219	912	52,617	68,223	77.1
151	Leith Provident	2,903	2,500	16,841	5,195	1,875	6,301	41,389	8,097	140	161	2,788	8,652	32.2
152	Law	240	200	604	1,329	150	1,447	2,154	333	124	61	1,996	2,787	71.6
153	Larkhall	48	100	164	....	75	95	1,704	107	....	7	1,039	4,653	22.3
154	Lassodie	148	263	677	....	197	148	904	128	318	226	4,226	5,075	83.3
155	Larbert	216	200	3,230	....	150	195	2,868	814	....	....	3,041	3,538	85.9
156	Leslie Bread	371	380	2,392	....	285	1,059	3,040	1	....	....	3,441	11,859	29.0
157	Langholm	424	472	2,978	....	354	246	2,623	663	616	597	9,454	12,473	75.8
158	Leven Reform	407	690	2,703	....	292	570	6,377	1,864	122	59	1,687	1,687	77.2
159	Largs	100	85	284	233	63	46	988	134	332	262	1,303	1,687	64.6
160	Mauchline	432	410	5,920	405	307	2,018	3,557	1,321	191	111	5,472	8,471	76.5
161	Menstrie	183	180	3,657	....	135	1,761	3,173	487	13	146	2,661	5,178	52.3
162	Moffat Paper Mills	110	60	959	....	45	226	2,061	441	630	243	11,762	5,085	81.5
163	Markinch	539	500	4,689	90	375	1,710	9,067	1,822	105	174	5,368	14,439	69.5
164	Milngavie	231	170	1,269	77	127	422	4,838	251	....	....	....	7,727	....

SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

Number.	NAME OF SOCIETY.	No. of Members as per Congress Report.	No. of Shares in Scottish Co-op. Wholesale Society.	Amount of Share Capital as per Congress Report. £	Amount of Loan Capital as per Congress Report. £	Share Capital in Wholesale Society. £	Amount of Loan Capital in Wholesale Society. £	PURCHASED FROM WHOLESALE SOCIETY.					Estimated Total Purchases, being 20% less than Sales shown in Congress Report. £	Percentage of Purchases from Wholesale to Total Purchases.	Number.
								Grocery.	Drap'ry	Boots.	Furni- ture.	Total.			
165	Millport	94	100	485	....	75	86	£ 864	£ 195	£ 194	£ 94	£ 1,347	1,531	88.0	165
166	Muskelburgh Industrial	212	250	769	586	187	306	2,478	422	61	52	3,013	4,599	65.5	166
167	Muskelburgh and Fisherrow	582	667	4,365	949	500	1,834	9,297	1,430	402	270	11,399	18,601	61.3	167
168	Muirkirk	410	40	1,316	....	30	397	6,406	165	460	158	7,189	9,526	73.5	168
169	Maryhill	330	350	602	678	262	109	4,351	219	190	115	4,875	9,018	54.1	169
170	Newmilns	766	750	9,176	4,186	562	7,380	11,100	2,678	783	484	15,045	22,286	67.5	170
171	Northern Edinburgh	1,462	1,550	12,436	1,597	1,162	4,936	18,046	3,054	1,023	474	22,597	33,920	66.6	171
172	Newtonshaw	545	500	8,174	....	375	1,609	6,413	787	279	396	7,875	17,023	46.3	172
173	North British	31	120	145	....	90	41	593	6	....	3	602	1,543	39.0	173
174	Newtonshaw Industrial	250	100	2,662	....	75	141	798	240	234	108	1,380	7,526	18.3	174
175	Norton Park	1,043	1,000	4,874	2,267	750	147	16,670	2,430	738	454	20,292	25,034	81.1	175
176	Newmains and Cambusnethan ..	276	210	2,759	....	157	550	1,803	356	189	183	2,531	11,358	22.3	176
177	Niddrie	237	217	741	884	162	525	5,757	720	223	161	6,861	8,962	76.6	177
178	Newton Mearns	142	140	639	496	105	716	2,221	418	262	151	3,052	4,488	68.0	178
179	Newton	241	200	454	442	150	553	6,099	193	286	189	6,767	7,863	86.1	179
180	Newarthill	260	150	2,669	....	112	1,380	3,322	633	224	233	4,412	7,755	56.9	180
181	New Cumnock	200	140	380	635	105	16	2,107	2	1	47	2,157	4,067	53.0	181
182	Ochilvale	217	200	1,333	....	137	3	108	....	5	16	129	4,131	8.1	182
183	Overtown	142	120	833	....	90	131	1,720	313	129	161	2,323	4,020	57.8	183
184	Portobello	419	490	2,395	5,424	315	2,180	9,156	1,209	450	261	11,076	14,209	77.9	184
185	Paisley Equitable	875	700	2,028	7,867	525	2,275	16,541	....	700	44	17,285	28,863	59.9	185
186	Penicuik	1,590	1,500	34,477	....	1,125	18,114	30,850	7,813	1,723	1,165	41,551	57,685	72.0	186
187	Port Glasgow	390	280	1,540	1,835	210	194	6,029	1,400	522	224	8,175	11,503	71.1	187
188	Paisley Manufacturing	897	800	13,377	19,649	600	880	85	7,440	....	293	7,818	38,689	20.2	188
189	Paisley Provident	3,749	4,000	12,210	38,377	3,000	4,619	76,683	50	3,473	1,550	81,756	107,235	76.2	189
190	Parkhead	233	260	807	1,460	195	70	2,486	168	232	54	2,940	7,075	41.6	190
191	Pollokshaws	282	200	1,140	....	150	380	3,489	342	50	75	3,956	7,007	56.5	191
192	Perth	3,000	3,000	8,000	29,755	2,250	5,374	48,298	10,022	3,170	1,366	62,856	86,994	72.3	192
193	Peebles	341	210	2,920	1,641	157	129	6,340	1,504	387	380	8,611	12,315	69.9	193
194	Port Glasgow Provident	675	500	1,189	2,621	375	2,161	9,952	1,611	748	384	12,935	14,378	88.3	194
195	Prestonpans	250	220	876	....	165	1,689	5,125	1,079	100	73	6,977	7,939	80.3	195
196	Phains	159	140	208	1,169	105	658	2,953	735	299	462	4,449	6,106	72.9	196

198	Perth Coal Co.	1,043	1,265	....	225	2	31	2,031	1,441	243	311	4,026	9,703	41.5	199
199	Parkhead and Westmuir	316	1,163	....	225	87	2	2,031	1,441	2	55	2,331	5,280	44.1	200
200	Possil Park	269	883	197	135	20	63	2,211	6,410	1,860	1,558	34,810	49,370	70.5	201
201	Redding and Branches	1,186	23,519	....	789	16,199	1,236	24,922	1,542	795	295	7,995	16,187	49.4	202
202	Renfrew	390	1,997	2,770	300	1,236	218	5,363	1,542	24	18	1,071	1,659	64.6	203
203	Rigside	58	890	....	56	77	43	986	277	306	194	3,837	5,750	66.7	204
204	Radnor Park	151	937	266	112	77	77	3,060	718	208	274	4,350	6,569	66.2	205
205	Rawyards	43	668	....	32	179	3,150	9,745	616	133	172	10,666	14,303	74.6	206
206	St. Rollox	261	1,256	941	195	473	9,745	114,798	18,768	5,408	1,612	140,586	197,429	71.2	207
207	St. Cuthbert's	860	77,427	2,836	5,625	38,423	780	1,757	1,101	346	348	3,552	6,275	56.6	208
208	Strathaven	7,887	3,834	....	210	534	17,766	17,766	24	2	331	28,640	28,640	63.3	209
209	St. George	2,000	3,000	2,750	975	534	5,723	5,723	1,387	562	291	7,963	10,858	73.3	210
210	Skaterigg	311	3,311	3,591	225	2,874	4,299	4,299	515	297	155	5,266	7,819	67.3	211
211	Skatrigg	159	5,415	....	112	4,838	17	934	18	....	34	986	2,009	49.1	212
212	Skinflats	80	249	....	60	17	1,467	3,913	....	258	231	4,334	5,930	73.1	213
213	Strathkinness	94	567	1,286	142	76	3,487	3,487	358	192	108	4,293	6,377	67.3	214
214	Stevenston	211	2,114	1,300	174	339	3,904	3,904	89	874	310	14,868	22,173	67.1	215
215	Selkirk Equitable	239	7,023	....	450	650	11,653	11,653	2,031	1,021	982	12,099	18,618	65.0	216
216	Stirling	1,138	1,387	3,216	187	419	7,621	7,621	2,525	468	263	6,577	9,217	71.4	217
217	Shettleston	611	696	....	225	828	5,387	5,387	459	733	323	11,099	15,736	70.5	218
218	Stonefield Industrial	316	1,387	2,844	525	429	8,732	8,732	1,311	877	708	9,865	10,579	93.2	219
219	Selkirk Store Co.	582	5,545	....	285	594	6,490	6,490	1,790	....	7	3,920	4,960	79.0	220
220	Stenhousemuir	348	6,470	....	414	1,467	3,913	3,913	....	57	118	2,267	4,667	48.6	221
221	Stenhousemuir Baking	568	3,241	....	123	59	1,784	1,784	800	242	104	5,163	5,995	86.1	222
222	Scotstown and Whiteinch	165	588	....	262	70	4,017	4,017	1,313	87	353	57,672	57,672	15.9	223
223	St. Bernard	300	1,390	13,692	1,050	350	7,410	7,410	1,731	346	468	11,692	19,160	61.0	224
224	Slamannan	1,608	3,211	....	675	11,541	9,147	9,147	....	....	....	6,056	7,082	85.5	225
225	Ti licoutry	1,003	15,641	....	675	1,624	6,056	6,056	1,011	634	314	7,457	13,616	54.8	226
226	Ti licoutry Baking	954	6,927	8,461	277	4,029	5,498	5,498	1,682	519	62	9,360	14,793	63.3	227
227	Thornliebank	386	1,635	....	100	65	7,097	7,097	1,682	280	124	3,573	3,644	98.0	228
228	Thurso	1,062	6,683	....	178	747	2,828	2,828	341	121	37	2,059	2,625	78.0	229
229	Troon	230	1,225	1,303	90	710	1,652	1,652	249	884	623	11,952	17,224	69.4	230
230	Tullibody and Cambus	120	1,867	4,070	165	1,671	8,399	8,399	2,046	58	239	2,154	3,977	54.2	231
231	Tollcross	418	801	....	75	17	1,627	1,627	235	239	239	13,315	34,278	38.8	232
232	Trabboch	136	500	....	200	169	10,081	10,081	2,100	627	557	3,194	5,514	57.9	233
233	Tranent	929	2,966	9,189	720	4,291	2,813	2,813	288	15	78	6,696	9,803	68.3	234
234	Uphall	222	677	1,451	150	59	4,997	4,997	951	453	295	8,254	10,987	75.1	235
235	Uddingston	257	988	1,082	187	319	8,254	8,254	....	....	....	48,889	69,802	70.0	236
236	Underwood Coal Co.	177	392	....	97	36,997	37,929	37,929	7,124	2,438	1,368	4,676	7,943	58.9	237
237	Vale of Leven	2,960	6,222	52,080	1,500	6.9	3,753	3,753	620	203	100	1,916	2,271	84.4	238
238	West Wemyss	214	2,401	30	82	335	1,761	1,761	122	27	6	57,824	88,741	65.2	239
239	Westbarns	84	361	143	97	12,545	44,876	44,876	8,718	2,216	2,014	8,054	13,991	57.6	240
240	West Calder	2,074	23,257	2,506	1,522	969	5,748	5,748	1,579	440	287	2,442	5,243	46.6	241
241	Walkerburn	275	5,445	....	195	654	2,066	2,066	158	105	113	7,737	10,266	75.4	242
242	Wanlockhead	352	1,896	....	261	2,512	5,686	5,686	1,253	82	413	1,627	5,776	28.2	243
243	West Benhar	330	3,283	....	150	....	1,583	1,583	33	2	9	....	....	....	....
	Wick and Pulteneytown	453	1,409	1,060	77	....	....	....	....	....	....	....	....	....	....
	Total	141,888	1,154,591	468,212	92,564	472,446	2,043,271	2,043,271	322,375	115,931	76,003	2,557,580	3,982,133	64.2	

SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

FEDERATED SOCIETIES.

Number.	NAME OF SOCIETY.	No. of Members. as per Congress Report.	No. of Shares in Scottish Co-op. Wholesale Society.	Amount of Share Capital as per Congress Report.	£	Amount of Loan Capital as per Congress Report.	£	Share Capital in Wholesale Society.	£	Amount of Loan Capital in Wholesale Society.	PURCHASES FROM WHOLESALE SOCIETY.					Estimated Total Purchases, being 20% less than Sales shown in Congress Report.	Percentage of Purchases from Wholesale to Total Purchases.	Number.
											Grocery.	Drap'ry	Boots.	Furni- ture.	Total.	£		
1	Ayrshire Baking	7	61	1,008	£	13,753	£	45	£	3,978	£	8	£	48	£	14,723	99.5	1
2	Drapery and Furniture	33	120	5,380	£	12,146	£	90	£	7,473	£	17,808	£	2,077	£	31,985	86.0	2
3	Scottish Farming Association ..	275	200	3,189	£	1,925	£	39	£	7	£	3	£	42	£	3,547	16.2	3
4	Scotch Tweed Manufacturing ..	323	200	9,016	£	2,016	£	13	£	....	£	27	£	38	£	9,358	0.9	4
5	United Baking	48	161	8,739	£	38,674	£	120	£	3,398	£	56	£	114	£	93,537	83.9	5
6	United Baking, Chapelhall	6	20	354	£	1,046	£	15	£	69	£	4	£	7	£	5,439	66.3	6
	Total	692	762	27,686	£	69,560	£	322	£	14,925	£	17,903	£	2,326	£	158,539	....

SOCIETIES NON-MEMBERS, BUT WHO HAVE PURCHASED FROM WHOLESALE DURING 1891.

Number.	NAME OF SOCIETY.	No. of Members as per Congress Report.	No. of Shares in Scottish Co-op. Wholesale Society.	Amount of Share Capital as per Congress Report.	Amount of Loan Capital as per Congress Report.	Share Capital in Wholesale Society.	Amount of Loan Capital in Wholesale Society.	PURCHASES FROM WHOLESALE SOCIETY.					Estimated Total Purchases, being 20 % less than Congress Report.	Percentage of Purchases from Wholesale to Total Purchases.	Number.
								Grocery.	Drapery.	Boots.	Furni- ture.	Total.			
1	Aberdeen Northern	11,169	...	57,944	£	£	£	£	£	£	£	£	£	0.1	1
2	Auchterarder Baking	289	...	191	156	...	...	20	...	...	...	20	1,632	1.3	2
3	Arbroath Friendly Coal	3,141	...	2,454	...	...	...	17	...	...	4	21	6,784	0.3	3
4	Blebo Works	67	...	219	...	...	11	482	160	...	12	654	2,170	30.1	4
5	Bridgeton Victualling	476	...	1,251	...	...	15	128	...	...	...	128	18,763	0.7	5
6	" Old Vict. & Baking Scty. ..	1,290	...	3,750	...	...	6	...	...	454	...	454	57,346	0.8	6
7	Blaigowrie	146	...	277	970	...	3	168	...	...	...	168	3,133	5.3	7
8	Carnoustie	993	...	7,946	...	...	3	1,620	33	...	54	1,707	17,691	9.6	8
9	" Equitable	217	...	377	1,548	...	2	142	2	...	20	164	5,759	2.8	9
10	Dundee and District Coal	1,179	...	419	...	...	...	8	...	...	...	8	2,828	0.2	10
11	Dunfermline Manufacturing	95	...	881	171	...	9	...	2	...	...	2	805	0.2	11
12	Dunning	86	...	162	...	...	11	63	...	...	...	63	705	8.9	12
13	Eastern Dundee	3,651	...	11,375	2,397	...	74	10,327	59	...	397	10,783	114,587	9.4	13
14	Edinburgh Civil Service	6,248	...	6,248	...	...	89	7,967	...	251	88	8,306	180,920	4.6	14
15	Freuchie	141	...	816	245	...	10	28	80	...	22	130	3,378	3.8	15
16	" New	86	...	455	...	...	7	66	49	...	3	118	1,935	6.1	16
17	Kirriemuir	1,082	...	5,088	...	...	168	1,677	14	...	41	1,732	20,503	8.4	17
18	Kirkcaldy	403	...	1,006	...	...	1	391	...	...	...	391	7,393	5.3	18
19	Kilsyth	131	...	277	...	...	...	2	...	...	...	2	4,357	0.04	19
20	Leven	122	...	550	...	...	1	322	69	...	7	398	3,564	11.1	20
21	" Baking	636	...	2,370	...	...	11	235	...	...	...	235	6,385	3.7	21
22	Muthill	152	...	111	...	...	...	...	15	...	...	15	2,133	0.7	22
23	Montrose Baking and Trading ..	1,288	...	2,889	...	...	10	544	...	...	2	546	14,190	3.8	23
24	Oakbank	308	...	2,357	1,640	...	77	662	...	...	44	706	13,779	5.1	24
25	Peterhead	154	...	223	...	...	...	88	6	...	4	98	1,567	6.2	25
26	Riccarton Junction	32	...	189	...	...	3	269	...	...	8	277	1,170	23.7	26
27	Saltcoats	78	...	188	...	...	14	395	81	2	11	489	1,986	24.6	27
28	United Association, Brechin	1,266	...	11,376	504	...	42	441	...	...	7	448	20,033	2.2	28
29	Westport, Arbroath	2,217	...	22,052	...	...	6	303	...	...	...	303	42,803	0.7	29
30	West Townend, Forfar	326	...	564	...	...	5	180	...	...	...	180	5,246	3.4	30
	Total	37,469	...	144,005	7,631	...	569	26,556	742	818	771	28,887	784,106	3.6	

SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

SOCIETIES WHICH HAVE MADE NO PURCHASES DURING 1891.

Number.	NAME OF SOCIETY.	No. of Members as per Congress Report.	No. of Shares in Scottish Co-op. Wholesale Society.	Amount of Share Capital as per Congress Report. £	Amount of Loan Capital as per Congress Report. £	Share Capital in Wholesale Society. £	Amount of Loan Capital in Wholesale Society. £	PURCHASED FROM WHOLESALE SOCIETY.					Total.	Estimated Total Purchases, being 20% less than Sales shown in Congress Report. £	Percentage of Purchases from Wholesale to Total Purchases.	Number.
								Grocery.	Drap'ry	Boots.	Furni- ture.		£	£		
1	Airdrie Bread	787	...	780	900	...	...	£	£	£	£	£	...	5,323	...	1
2	Auchinheath	369	...	1,486	...	...	...	...	...	...	...	...	...	16,427	...	2
3	Burntisland Bread	273	...	1,384	...	...	...	...	...	...	...	...	...	1,732	...	3
4	Banff	281	...	937	...	...	...	...	...	...	...	...	...	2,723	...	4
5	Blackford	68	...	157	...	...	...	...	...	...	...	...	...	1,096	...	5
6	Carronhall and Kinnaid	852	...	407	...	...	...	...	...	...	...	...	...	5,754	...	6
7	Carronshore Baking	229	...	926	...	...	...	...	...	...	...	...	...	2,444	...	7
8	Comrie	139	...	395	...	...	...	...	...	...	...	...	...	1,944	...	8
9	Dalry Baking	336	...	245	...	...	...	...	...	...	...	...	...	1,752	...	9
10	Darngavil	91	...	248	...	...	...	...	...	...	...	...	...	4,130	...	10
11	Dysart	682	...	1,912	603	...	...	...	...	...	...	...	...	12,768	...	11
12	Don (Port Elphinstone)	455	...	2,490	809	...	...	...	...	...	...	...	...	7,634	...	12
13	Forfar Saving Association	160	...	179	780	...	1	...	...	...	...	...	...	3,243	...	13
14	Coal	1,038	...	760	...	...	...	...	...	...	...	...	...	2,528	...	14
15	Victoria Coal	658	...	421	...	...	...	...	...	...	...	...	...	1,397	...	15
16	West Port	179	...	200	...	...	...	...	...	...	...	...	...	2,640	...	16
17	Free Trade	372	...	519	...	...	...	...	...	...	...	...	...	6,568	...	17
18	Ferry Port-on-Craig	208	...	789	...	...	...	...	...	...	...	...	...	1,919	...	18
19	High Street, Forfar	302	...	450	...	...	...	...	...	...	...	...	...	5,416	...	19
20	Kilmarnock Industrial	781	...	2,563	...	...	...	...	...	...	...	...	...	12,985	...	20
21	Larkhall Victualling	438	...	461	...	...	...	...	...	...	...	...	...	14,695	...	21
22	Northern Association, Forfar	314	...	496	1,203	...	...	...	...	...	...	...	...	6,090	...	22
23	Newburgh Bread	234	...	301	...	...	...	...	...	...	...	...	...	1,485	...	23
24	Rosewell	114	...	363	...	...	...	...	...	...	...	...	...	6,125	...	24
25	Rutherglen Victualling & Baking	316	...	422	...	...	...	...	...	...	...	...	...	12,834	...	25
26	Strathisla	419	...	1,157	...	...	1	...	...	...	...	...	...	6,819	...	26
27	Springfield, Polton	98	...	205	...	...	...	...	...	...	...	...	...	1,835	...	27
	Total	9,683	...	20,653	4,296	...	2	...	...	...	...	...	...	150,206	...	

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

BY HENRY DUNCKLEY, M.A., LL.D.

IN giving some account of the origin and history of stock exchanges it may help to make our views of the subject more clear and precise if we begin with the words themselves. We have constantly to keep in mind the distinction between words and things; nevertheless, since words are chosen as names because they describe the characteristic features of the things named, they have always an historical importance. The process of exchange, as we all know, is the giving of one thing for another. The motive for the exchange is the preference which each person has for that which the other desires to part with, and there is an implied supposition that the two things are of equal value. Nobody willingly gives for anything more than it is worth, and in every act of exchange the two things measure each other. In this simple process of exchange we see represented perhaps the oldest, the most fundamental and the most widely-extended function of human society. It is one which connects the remotest extremes of barbarism and civilisation. As soon as men began to live together there must have been some diversity of occupations, and barter necessarily followed. The merchant of to-day is essentially a barterer; he exchanges the productions of one class of the population or of one country for those of another, money being employed chiefly as the measure of value and the instrument of transfer. The same process is repeated in the countless transactions of everyday life. Every street, every shop, every store, every household affords illustrations of it. Mankind live by exchanging with each other, and in this sense it may be said that the world is one great exchange.

THE FIRST ENGLISH EXCHANGE.

SUCH being the nature of commerce we readily recognise the appropriateness of the name finally given to the famous building which Sir Thomas Gresham erected in 1566 for the accommodation of the merchants of London. It seems to have been first known as

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

the Burse. There was a Burse at Antwerp and at some other places in the Low Countries. Sir Thomas had often visited them in the course of business, and when he resolved to erect a building of the same kind in London it was natural that he should call it by the same name. The name has a curious history of its own. It is of French origin and means a purse. Though it has been obsolete in this country for nearly a couple of centuries, it has held its ground on the Continent. We read to-day of "the foreign Bourses," and the Paris Bourse is one of the chief centres of the monetary world. Since a purse is suggestive of money we seem to see an obvious reason why it should be chosen to designate a class of buildings which were devoted to the transaction of business in money and money values, but the explanation is held to be a mistaken one. The name is believed to have originated at Bruges, where the merchants used to assemble in a house previously belonging to the de Bursa family, whose armorial bearings were three purses, the three purses being painted on the front of the house. Hence they called their place of meeting the Burse or Bourse, and from this singular beginning the name crept into general use. Sir Thomas Gresham's new building was opened in 1568, and two years later it was honoured by a visit from Queen Elizabeth. On the 23rd of January, 1570, the queen, attended by her nobility, made her progress through the city from Somerset House to Bishopsgate Street, where she dined with Gresham. Returning by Cornhill she entered the "Burse," and after viewing every part of it, especially the covered corridors on the second storey with their richly furnished shops, "she caused the same Burse by an heralde and a trompet to be proclaimed the Royal Exchange, and so to be called thenceforth and not otherwise." The royal command was dutifully obeyed. The old name fell into disuse. The existing building is the third that has stood on the same spot, but the same name has been borne by each in succession. It has also been given to the whole class of buildings that have since been erected for the same or kindred purposes.

ORIGIN OF "STOCK."

THE word "stock," as employed by Adam Smith, is hardly to be distinguished from capital, whether fixed or floating. The amount of stock a trader possesses is the amount of capital at his command, whether retained in the shape of money or turned into goods. We still speak of a man's stock-in-trade and of the periodical stock-taking. From this use the name easily passed to describe the money subscribed to form a capital fund to be employed for a given purpose. This was so much capital stock, and since there were many funds of this kind, and each fund was divided for the convenience of

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

subscribers into smaller sums, generally of one hundred pounds each, the whole came to be described collectively as stock and distributively as stocks, the method of naming them which now prevails. The creation of stock in this sense of the word was the invention of a new commodity. It differed from the ordinary materials of commerce. It had no crude bulk like corn, or wool, or silk, or tea. It was neither raw produce nor manufactured articles. It could neither be eaten, nor worn, nor used as furniture. It had no decorative value. The only visible attestation of its existence was a piece of paper with something written or printed upon it, or perhaps only a few lines with a signature in the transfer book of a bank. Yet the slip of paper, weighing less than a pennyweight, might import a value greater than that of a pound of gold. But, as we shall presently see more clearly, these new commodities might be far more fluctuating in point of value than the solid materials of commerce. The scraps of paper might vary in value in the course of a few weeks or even in the same day by as much as 5, 10, or 20 per cent. We are introduced at the same time to a new set of disturbing causes. In addition to droughts and storms and other natural visitations with which the merchant has to lay his account, the actions of men had to be considered. There was the prudence or the honesty of those who had the management of the stock. A single battle might raise it or weigh it down. Even trickery and malevolence might work much mischief. It would take a good deal of whispering to reduce the value of a quarter of wheat or a bale of silk manufactures. They could hold their own against malicious tongues. But a single rumour set afloat and widely believed might for a time, until the falsehood was detected, reduce a handful of scrip to one-half its nominal value. Worst of all, it was the interest of those who dealt in stocks to favour such fluctuations. They could make but little profit while the surface of the market was without a ripple. Their chances lay with a storm, and they might sometimes be tempted to raise one for the occasion.

There was little business of this kind doing when the Royal Exchange was thrown open to the merchants of London, but there was some. The transactions of commerce were often mixed up with foreign loans. The services of the merchants were often required in negotiating such loans, and there were gains to be made by those who were keen and far-sighted. The money scriveners, who then did the work of banking, were ready to furnish assistance to the merchants, and were their allies in the larger enterprises which they would occasionally undertake. Ships were fitted out to cruise for prizes in the Spanish main—that part of the ocean adjacent to their American possessions over which the Spaniards asserted a right to exclusive jurisdiction. Many of these enterprises were highly

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

adventurous; they might result in great gains or in great losses, and they helped to foster the spirit of speculation. An enterprising sea-captain had no difficulty in raising money enough to equip a vessel and freighting it with goods. There were plenty of merchants, and even of private gentlemen, who would be ready to assist him on condition of sharing in the profits of his venture in proportion to the sums they subscribed. It is said that the great Queen herself was not unwilling to furnish money on such terms. The English merchant of that age was acquiring a new character. East and west the world seemed to be opening to him, and as his views widened his wits grew keener, and his ardour in pursuit of wealth more intense. The Royal Exchange was the chief centre for all who were engaged in financial or mercantile operations; they kept together according to their different pursuits, and had their special places of resort within the building.

THE EAST INDIA COMPANY.

THE first creation of stock in this country on a large scale took place in connection with the formation of the East India Company—the famous corporation of capitalists—who, beginning as traders, became, in the course of time, the founders of the great empire over which we bear rule to-day. The company started in 1599, with a capital of £30,000, divided into 100 shares, and the following year obtained a charter from the Crown, with special privileges which were to be continued for fifteen years. In the first year of the new century, five ships laden with merchandise and bullion sailed for India from Torbay. The experiment was successful. Between 1603 and 1613 eight other expeditions were undertaken and all except one were highly remunerative, the profits ranging from 100 to 200 per cent. The company was liberal in its arrangements. Persons not belonging to it were allowed to join for particular ships or particular voyages, and received their due share of profits. In 1609 the charter of the company was renewed for an indefinite period, terminable on a three months' notice from the Government. In 1612 the joint-stock capital was raised to £420,000, and outsiders were no longer allowed to take part in the company's operations; but this exclusion seems to have led to a more systematic demand and to a special arrangement for meeting it. In 1616 a new fund of £1,600,000 was raised. This sum was placed under the direction of the company, but was kept apart from the older stock, and the subscribers were dealt with separately. The same plan was adopted in 1632, when a further sum of £420,700 was subscribed. There were now three capital stocks, amounting in all to £2,440,700, a large and rapid advance upon the £30,000 with which the company started only thirty-two years before,

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

and there can be no better proof of the success which had been realised. The affairs of the company were managed, in accordance with the charter, by twenty-four members, who were elected annually by the proprietors from among themselves. They had already established friendly relations with the Great Mogul. He had given them leave to set up trading establishments at Surat, Cambay, Dageh, and Ahmedabad—this last a town in the interior, more than two hundred miles from Bombay. In return for this concession the company undertook to pay him a duty of $3\frac{1}{2}$ per cent on all their exports.

Success so decided and on so large a scale could not but be regarded with envious eyes. In 1636 another company was formed with a view to competition. The way seemed closed by the charter of the older company conveying exclusive rights, but King Charles I. was not over-scrupulous in such matters where his interests were concerned. The new company promised him a share in their profits, and this easily procured for them a license to trade with India. Remonstrances were in vain. Parliament had not met for six years, and there was no court of appeal from the royal will. There were now two trading companies in India bidding against each other and spoiling the markets from which such ample profits had been derived. In 1650 they agreed to amalgamate, and thenceforward carried on their operations under the name of the United Joint-Stock. Dissatisfaction seems to have arisen soon after among the proprietors themselves. Some of them disapproved of the management, and, having obtained from Cromwell permission to trade with India on their own account, they formed a separate company, to which they gave the name of the Merchant Adventurers. A society of merchants had been established under this name so far back as 1296, a period about contemporary with the beginning of the English Parliament, when the foreign trade of the country did not extend much beyond Flanders. The name, therefore, was venerable and well known. But the rivalry did not last long. At the end of two years the Merchant Adventurers threw their money into the funds of the old company, the new subscription amounting to £786,000. In 1661, the year after the Restoration, the company's charter was renewed, with additional privileges. It was empowered to make peace or war with or against any princes and people, not being Christian, and to seize upon any unlicensed Europeans who might be found within its sphere of trade, and send them to England. By this time that sphere was very considerably extended. At the solicitation of an English physician, who had cured the Great Mogul of a serious disorder, the company obtained permission to trade freely in every part of Bengal without paying export duties. Their gratitude to the person to whom they were indebted for this important concession

was not displayed on a very munificent scale. They thought him sufficiently rewarded with a present of £375. They had also secured a footing at Madras, on the coast of Coromandel, where Fort St. George had been built to protect their trade. The authority of the Great Mogul did not extend so far south, but the requisite permission was obtained from the native prince to whom the territory belonged. A far more important acquisition was made on the west coast. By his marriage with Catherine of Braganza, Charles II. acquired possession of the island of Bombay, which formed part of the princess's dowry. Not well knowing what to do with it, and thinking it hardly worth the cost of governing, the king made a present of it to the company, to be held in "free and common socage as of the Manor of East Greenwich on payment of the annual rent of £10 in gold on the 30th of September in each year." The company were now established in the three districts of India which were afterwards to be known as the presidencies of Bengal, Madras, and Bombay.

The company was not long allowed to enjoy its great privileges in peace. The reputation of its success induced adventurers to set its regulations at defiance. Some of them were captured and even sentenced to death, but this did not deter others from making similar ventures. The company then resolved to keep the public in the dark by no longer publishing its annual accounts of business done and profits made, but secrecy only whetted curiosity, and favoured, perhaps, excessive estimates of its gains. In 1693 a new charter was granted for twenty-one years, but popular feeling was roused and it encountered much opposition. The House of Commons passed a resolution declaring that "it is the right of all Englishmen to trade to the East Indies or to any other part of the world, unless prohibited by Act of Parliament." Nevertheless the charter was renewed, and the success of the company in obtaining it was only too easily explained. There had been wholesale bribery. The House of Commons, suspecting as much, called for the books of the company. On examining them it was found that £90,000 had been expended in "secret services" in the course of the preceding year, and that Sir Thomas Cooke, one of the directors of the company and a member of the House, was the person through whom the money was spent. He was required to tell what he had done with it, and on refusing was committed to the Tower, while a bill of pains and penalties was brought in for the purpose of compelling him to make the required disclosure. On a promise of protection from legal consequences, he confessed. He had paid £10,000 to Mr. Francis Tyssen, the deputy-governor, and this sum he believed had been delivered by Sir Josiah Child to the king, as a "customary present" which had been made to former kings. Another sum of the same

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

amount had been paid to Mr. Richard Acton, to be distributed among members of Parliament. As large a sum as £40,000 was paid to Sir Basil Firebrace. He declared that it had been given him for his own use and benefit; but he probably said this in order to escape the necessity of mentioning the names of those among whom he had distributed the money. The Duke of Leeds was found to be implicated, and it was resolved to proceed against him by a bill of impeachment for high crimes and misdemeanours. But by this time much had been discovered that both parties were afraid of going further lest worse things should come to light. By tacit consent the prosecution was delayed preparatory to being dropped, and an early prorogation of Parliament put a stop to the business.

But the company, though seemingly victorious, was really at the crisis of its fate, and a new weapon was about to be unsheathed against it. We now encounter for the first time a fact which was henceforth to be the key of national finance. The Government was in want of money to support the king (William III.) in the prosecution of hostilities against France, and was eager to accept aid from any quarter. A number of wealthy merchants, knowing well how matters stood, resolved to form a new East India Company, and trusted to obtain the necessary sanction by making large offers of pecuniary assistance to the Government. To meet the emergency the old company offered a loan of £700,000 at 4 per cent as the price of the confirmation of its charter; but the new company outbid them, asking, indeed, higher interest, but offering a much larger sum. They were ready to place £2,000,000 at the king's service at 8 per cent. Their offer was accepted. An Act was passed incorporating the associated merchants under the name of "The General Society," authorising them to trade together or to trade individually up to the amount of their subscriptions. Those of the merchants who preferred to trade together on the same capital stock obtained a separate charter of incorporation as "The English Company Trading to the East Indies." But the old company had by no means given up the struggle for existence. It had availed itself of Parliamentary permission to subscribe towards the stock of the General Society, and in this way had disposed of a portion of its capital. The intention of Parliament, no doubt, was that it should be absorbed in the General Society, but it succeeded in obtaining an Act continuing its corporate rights. Once more there were two companies in the field, each armed with ample powers, and each bent upon out-manœuvring the other. Once more also the rivalry ended in the same way, and on this occasion for the last time. It was agreed that they should work together in a friendly spirit for the next seven years, sharing the business between them, and each electing one-half of the court of directors; at the end of the seven years they were to amalgamate

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

absolutely. The interval was not a peaceful one, but their fate was in the hands of a common task-master. The Government called upon them for a fresh loan of £1,200,000, and they had to make up their quarrels in order to provide payment. The final result was an agreement to become one. An indenture to that effect passed under the great seal, and the two companies took the name by which they were thenceforth known to history and to fame as the "United Company of Merchants Trading to the East Indies," or, more briefly, the East India Company.

SPECULATION AND STOCKJOBING.

THE chartered companies of the seventeenth century, among which the companies trading to the East Indies held the leading place, furnished a training ground for the dealers in stocks, and may be said to have originated a new class of business. Considered from one point of view, they may be regarded as having set the first example of co-operation on a great scale. A number of people joined together to accomplish objects for which the resources of individuals were insufficient. What one person could not do could be done by many if they agreed upon a common management and accepted certain rules. They threw their money into a common fund, some subscribing more, some less, according to the amount it suited them to spare for that particular investment, and they divided the profits in proportion to their subscriptions. The capital fund being divided into shares, each subscriber retained full command of his own property. If he wanted ready cash he had only to take his shares into the market and sell them at the price of the day; what the price would be depended upon the degree of repute in which the enterprise was held, and that again depended upon the profits which had been declared, and upon the events which were likely to influence future profits. From the nature of these transactions there was plenty of room for speculation. When a ship left London for the East there was no telling what might happen to her before she got to the end of her double voyage. From the time she left these shores probably nothing would be heard of her till she reached them again. There was no network of intelligence spread all over the world, as there is now, with agents at every important geographical point ready to flash news home from day to day. On every long voyage there were months of uncertainty which might be filled with rumours, good or bad, but certain in either case to tell upon the selling value of the shares. In respect of agents as well as of commodities the maxim holds good, that demand creates supply. When a considerable number of persons were willing to sell or to buy shares persons were soon found who were ready on certain

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

terms to facilitate the exchange. As transactions multiplied so did those who were at hand to conduct them, till by degrees they slid into the position of a separate and rather motley profession. There was no reason for preferring an indictment against the entire body. The business to which they devoted themselves was one which might be conducted honestly, but it also offered many temptations to persons of lax morals. The art of spreading false reports was cultivated to perfection. "Jobbing," says Mr. Francis in his *Chronicles and Characters of the Stock Exchange*, "was thoroughly understood. No sooner was it known that one of the fine vessels of the India Company, laden with gold and jewels from the East, was on its way than every method of influencing opinion as to its fortunes was had recourse to. Men were employed to whisper of hurricanes which had sunk the well-stored ship; of quicksands which had swallowed her up; of war which had commenced when peace was unbroken, or of peace being concluded when factories were in the utmost danger. A broker of that day understood his craft sufficiently to cause a variation in the price of India Stock of 263 per cent." The language is a little rhetorical, but in substance the view given is probably not exaggerated.

The habits thus fostered, aided by the rapid growth of wealth and the craving for new investments on the part of a large portion of the public who were saving money and were at a loss how to employ it profitably, soon led to a plenteous outcrop of adventurous undertakings. Lord Macaulay describes them in one of his graphic pages, drawing his facts from a contemporary publication. "It was," he tells us, "about the year 1688, the memorable year of the Revolution, that the word stockjobber was first heard in London. In the course of four years from that date a crowd of companies, all holding out the assurance of great gains, sprang into existence: The Insurance Company, the Paper Company, the Lutestring Company, the Pearl Fishery Company, the Glass Bottle Company, the Alum Company, the Blyth Coal Company, and the Sword Blade Company." There was a Tapestry Company, "which would soon furnish pretty hangings for all the parlours of the middle class and for all the bedrooms of the higher." There was a Copper Company, "which proposed to explore the mines of England and held out a hope that they would prove not less valuable than those of Potosi." There was a Diving Company, "which undertook to bring up the precious effects from shipwrecked vessels." There was a Greenland Fishing Company, "which could not fail to drive the Dutch whalers and herring busses out of the Northern Ocean." There was a Tanning Company, "which promised to furnish leather superior to the best that could be brought from Turkey or Russia." To crown the list there was a Royal Academies Company, which promised a liberal

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

education on the lottery system. Twenty thousand tickets were to be issued at twenty shillings each, and there were to be two thousand prizes, the fortunate holders of which were to be taught half a dozen languages, with mathematics and sundry accomplishments to boot. "The spirit of the cogging dicers of Whitechapel," says Lord Macaulay, "took possession of the grave senators of the city, wardens of trades, deputies, aldermen. It was much easier and much more lucrative to put forth a lying prospectus announcing a new stock and to persuade ignorant people that the dividend could not fall below 20 per cent, and to part with five thousand pounds of this imaginary wealth for ten thousand solid guineas, than to load a ship with a well-chosen cargo for Virginia or the Levant. Every day some new bubble was puffed into existence, rose buoyant, shone bright, burst, and was forgotten." In Shadwell's play of the "Stockjobbers" four or five "stern Nonconformists, clad in full Puritan costume," discuss the prospects of the Mousetrap Company and the Flea-killing Company, going on next to consider the lawfulness of holding shares in a company for bringing over Chinese rope-dancers. The result is an affirmative decision, and that on two grounds—first, they were not obliged to see the rope-dancers although they held the shares, and secondly, in all likelihood no rope-dancers would be brought over. The shares would sell, and that would be the end of the business. This was the last of Shadwell's dramas, and as he died in 1692 it affords us a trustworthy date in the history of stockjobbing. At that period the practice was well established, it was conducted on an extensive scale, and those engaged in it were of sufficient interest to induce the poet laureate to put them into a comedy for the amusement of the public.

THE NATIONAL DEBT.

THIS same year marks a far more important era. From 1692 dates the commencement of the National Debt. This was not the first time the Government had borrowed money. In former times our kings were always borrowing. They had the misfortune to be constantly living both beyond their income and ahead of it, and their recurring necessities had to be met by loans. Sometimes they borrowed from their own subjects, and it was done in various ways. One was that of forced benevolences. Men who were known to be wealthy were suddenly pounced upon by State officials, or invited to attend at the Exchequer. They had no choice in the matter. They were told how much they were expected to place at the king's disposal, generally, but not always, with the assurance of being repaid, and the money had to be found. Sometimes, when the merchant fleet of the year was about to set sail for Flanders, an

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

order was issued to detain the ships at the ports and not permit them to leave till the merchants had promised the king a loan. Loans were often raised abroad, with the banking houses of the Netherlands, Italy, or Spain. Sir Thomas Gresham, the founder of the Royal Exchange, held, through several reigns, the post of foreign agent for the Government, and was chiefly employed in negotiating and liquidating such loans. James I. kept out of war and within his means; Charles I. had worse than financial troubles; and Charles II., whom his Parliaments treated with too much generosity, made up any casual deficiencies by accepting pay from France. But whatever debts might at any time be contracted by the Government they were recognised as obligations to be cleared off as soon as possible. The theory and, as nearly as possible, the practice were to make each year pay its own way. The brilliant idea of throwing the nation's debts upon posterity had not yet dawned upon the minds of statesmen, but in finance, as in other things, "necessity is the mother of invention."

When the Prince of Orange arrived on our shores he brought a foreign policy along with him. He was at the head of a coalition against France, whose conquests, prompted by the ambition of Louis XIV., threatened the balance of power. Holland was the State chiefly menaced; but England was believed to have much at stake, nothing short, it was said, of her independence and freedom. William cared for the Crown of England principally because of the greater amount of power which it would place in his hands as a means of advancing the cause to which all his energies were devoted. The Revolution was a heavy blow struck at the projects of Louis. He took our runaway king under his protection, and his dearest wish was to force him back upon us as his dependant and ally. Hence the country, or the strongest and most patriotic part of it, entered warmly into the plans of the new monarch, who had helped them to throw off the yoke of absolute power. But the demands made upon the nation were heavier than had ever been made upon it before. More troops were called for every year till the army counted ninety thousand men. A land tax was imposed, not in its old attenuated form, but on a fresh valuation and at the full value of four shillings in the pound. This and other available means were nevertheless insufficient to meet the supplies voted by Parliament; the revenue of the year fell short by a million of the sum wanted, and it occurred to the Treasury Board to meet the deficiency by a loan. There was the strongest possible temptation to take that course. Money was plentiful; it was being poured without stint into a multitude of more or less crazy enterprises. If the public were so willing to lend, why, it was said, should not the Government borrow? The credit of the nation would offer good security. Whatever was lent to the nation

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

would certainly carry interest and be ultimately repaid, unless the Government itself were overthrown, and this risk would only make those who lent the money more anxious to promote the stability of the new order of things established by the Revolution. Accordingly a bill was brought in authorising the raising of a million by way of loan. But it was not to be a permanent debt; it was to be raised by means of life annuities, and partly on the principle of the tontine. As the annuitants died off the annuities were to be divided among the survivors till the number was reduced to seven, when all that fell in would go to the public. The interest was to be 10 per cent till the year 1700, and afterwards 7 per cent. A tax levied on beer and other liquors was assigned to the service of the loan, and to provide for its being used exclusively for meeting the annual charge the officers of the Exchequer were directed to keep it separate from all other revenues. It was a neat arrangement. A portion of the capital would be paid off along with the interest every year, the debt would wholly expire at the death of the oldest annuitant, and the special tax would cover the yearly payment. The interest was high, but there were risks to be run. The Government settled at the Revolution was only four years old, and though its subversion by a Jacobite reaction was unlikely, it was not impossible.

THE BANK OF ENGLAND.

Two years later the Government were again in want of money to carry on the war, and after raising as much as they could, or as they dared, by laying on fresh taxes they resolved to meet a part of the deficiency which still remained by raising another loan. The sum fixed upon was a million, and it was to be raised by means of a lottery of an ingenious kind. The million was divided into a hundred thousand shares of ten pounds each, which were to carry interest at 10 per cent for the next sixteen years. To make the scheme more attractive, two thousand five hundred of these shares were to bear a higher interest than the rest, and they were to be drawn for as in a modern raffle. On this plan the debt would be extinguished in sixteen years, and a tax on salt was to provide the funds for defraying the annual charge. But there was still a deficiency. Another million had to be raised by some means or other. In these circumstances the Government lent a willing ear to a scheme, which in various shapes had been pressed upon their attention from several quarters, for the founding of a National Bank, and from among the plans which had been suggested they selected the one proposed by Mr. William Paterson, whose share in the origination of the enterprise has given his name a permanent place in history. He was an ingenious and speculative Scotsman; a man undoubtedly of great

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

telligence, but with a rather fatal proneness to adventures. No one knew much about him when he made his appearance among the London merchants, propagating his views with the zeal of a missionary, and endeavouring especially to impress them upon the Government. There was of course nothing new in the idea of a bank, or even of a National Bank. Private banks were only then beginning to be naturalised in London; but a great example existed in the Bank of Amsterdam, and at Genoa and Venice institutions of the same kind had flourished for centuries. It may perhaps be said, with even more certainty than when the Book of Ecclesiastes was written, that there is no new thing under the sun. In every department of thought and action it will be found that mankind work by substantially the same methods, though as time goes on the methods are improved and perfected by the knowledge derived from experience. It would appear from certain clay tablets which have been dug up on the site of ancient Babylon that the firm of Egibi and Son conducted general banking business in that city from seven hundred to six hundred years before the Christian era, and we need hardly wish to go further back. It must certainly be admitted that in the matter of banking we were not among the "foremost in the files of time."

The plan proposed by Paterson, and finally adopted, was that twelve hundred thousand pounds should be raised and lent to the Government, and that the subscribers to the loan should be incorporated under the style and title of the Governor and Company of the Bank of England. The corporation was to have no exclusive privileges, differing in this respect from the East India Company. Nor was it to be permitted to engage in trade generally. Its business was restricted to dealing in bills of exchange, bullion, and forfeited pledges—the pawnbroker figuring in very good company. The loan was to bear interest at 8 per cent, and the annual charge was to be met by a new duty on tonnage. A bill for carrying out the scheme passed the House of Commons without much difficulty, but in order to meet the apprehension that if the Bank lent money to the Government one of our constitutional safeguards might be weakened, a clause was inserted prohibiting the Bank from making any such advance without the sanction of Parliament. There was a strong opposition to the measure in the Lords on the ground that it would help to strengthen the moneyed interest and have an unfavourable effect upon the landed gentry. An amendment was moved to strike out the clauses relating to the Bank, retaining only those imposing the new tax. But there were prudent peers who reminded the House that they were dealing with a money bill, and that it would not be wise to provoke a contest between the two Houses. This argument prevailed, and the bill soon became law. It was hailed with enthusiasm by the London merchants. They

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

thronged to subscribe as soon as the lists were opened, and in ten days the whole sum was raised. It seems odd that a bank should begin business by lending the whole of its capital, but the annual interest at 8 per cent amounted to a considerable sum, and four thousand pounds a year were allowed as the cost of management. No provision was made for the repayment of this loan. The Bank could at no time call it in, though it was repayable at the discretion of the Government. The first charter of the Bank was granted for eleven years, and was renewable from time to time, as it has been renewed down to our own days. There was never the slightest danger of its renewal being refused. On the contrary, the relations between the Bank and the Government became closer and closer till the connection was practically indissoluble. In 1697 the Bank was required to furnish another million. This sum was repaid in 1707. But other borrowings followed till by 1782 the indebtedness of the Government amounted to eleven millions and-a-half, and by 1816 to more than fourteen millions and-a-half. It was then arranged that one-fourth of the amount should be repaid, and the debt was reduced to £11,015,100, at which it stands now with interest at 3 per cent. At the same time the Bank was permitted to increase its capital stock one-fourth by assigning to each proprietor out of the Rest an addition of 25 per cent to his holding. By the Act of 1844 the Bank was allowed to issue notes against £14,000,000 of Government securities, the debt to the Bank counting as part of them. It was provided by the same Act that as country banks ceased to issue notes of their own two-thirds of the lapsed issues might be taken up by the Bank of England. Owing chiefly to this cause the sum for which the Bank is authorised to issue notes without gold to back them has considerably increased. It amounts at present to £16,200,000. Beyond that amount, as is well known, the Bank is required to have gold in its coffers for every note issued. It is true, as has been stated, that the Bank started in 1694 without any exclusive privileges, but this absence of monopoly did not last long. In 1708 an Act was passed making it unlawful during the continuance of the Bank of England for any banking partnership of more than six persons to issue notes in any part of England. In 1826 this Act was repealed so far as to permit such partnerships to issue notes at places more than sixty-five miles from London. It was long understood that the Act of 1708 prohibited all banks with more than six partners, and the monopoly of the Bank of England was in this way prolonged. But in the opinion of the law officers of the Crown, taken in 1833, the prohibition extended only to banks of issue, and a clause was inserted in the Bank Act of that year authorising the establishment of banks anywhere, with any number of partners, provided that they did not issue their own notes. The

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

issuing of their own notes has all along been the privilege of banks consisting of fewer than six partners, but it is of little value, and is becoming obsolete, the lapsed issues going, as we have seen, to increase the authorised circulation of the Bank of England.

The couple of millions lent by the Bank in 1694 and 1697 did not go far towards supplying the wants of the Government. They were swallowed up in the years in which they were borrowed, and every year saw the issue of fresh loans. There was as yet, however, no intention to create a debt which should be permanent. Money was raised on loans for a definite period, and taxes were imposed to meet the payment when it fell due. But deficiencies were always arising; the special taxes had to be continued to cover them, and any overplus served as a basis for fresh loans. The favourite method for raising large sums was the creating of life annuities, or annuities for ninety years. These sold for as many years' purchase as they would fetch, the money came in at once, and there was the consolation of thinking that at the end of the assigned period the payment would cease. But the debt went on accumulating till before long the expectation of paying it off at a fixed period was given up, and loans were contracted on the principle of permanent annuities, that is in consideration of the payment of interest year by year with no obligation on the part of the Government to repay the capital. At the close of Queen Anne's reign, after the war in which the Duke of Marlborough is the most prominent figure, and Blenheim, Ramilies, and Malplaquet, the crowning victories, the debt amounted to thirty-six millions. Thirty-five years later, at the end of the Spanish war, it had risen to seventy-five millions, and after fifteen years more, at the conclusion of the war which is associated with the name of the first William Pitt, it reached one hundred and thirty millions. The war with our American colonies brought it up to two hundred and forty-three millions, and finally, to stop at its highest figure, at the close of the wars of the French Revolution in 1815, it amounted to eight hundred and sixty-one millions. There had been a great reduction in the rate of interest since the debt first began to be contracted. In the reign of William III., as we have seen, it was 8 per cent or more. In the reign of Anne, money could be borrowed at 5 per cent. In 1727 the interest on the greater part of the debt was reduced to 4 per cent, and in 1753 and 1757 to $3\frac{1}{2}$ or 3 per cent. But it is not to be supposed that the fresh loans which were constantly being raised were issued on these terms. The rate of interest being known, the loans fetched the price which the market would give, and there were times when a hundred pounds worth of stock would bring in only eighty or even sixty pounds. The gentlemen of the stock market looked after themselves and their principals. In this way the total figures of the debt expressed much

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

more than the Government had actually received; but this fact must be balanced by the consideration that the offers of the Government fetched as much as they were supposed to be worth, though the negotiations from first to last no doubt afforded a great deal of room for jobbery.

BROKERS AND STOCKJOBBER.

THOSE who dealt in stocks and went by the name of stockjobbers had from the beginning a somewhat evil reputation. How far it was deserved, and how much may be pleaded on their behalf by way of mitigation it is not easy to say, but in 1697 it was deemed requisite to pass an Act of Parliament to keep them in order. The preamble to the Act conveys a sufficiently clear impression of the charges which were brought against them. "Whereas," so it runs, "divers brokers and stockjobbers have lately set up and carried on most unjust practices in selling or discounting tallies, bank-stock, and other matters, and have and do unlawfully combine to raise or fall the value of such securities for their own private advantage; and whereas the number of such brokers and stockjobbers are very much increased within these few years and do daily multiply, be it enacted," &c. Then follow the remedies prescribed. After the passing of the Act no person could act as broker without a license from the Lord Mayor and the Court of Aldermen of the City of London. The number of brokers was not to exceed one hundred, the admittance fees were not to be more than forty shillings, and the names of the brokers were to be put up in the Royal Exchange, in Guildhall, and in other public places in the city. Any person presuming to act as broker without having been admitted in the way prescribed was to forfeit £500, and anyone employing him £50. Persons not being sworn brokers acting as such were for every offence to stand three times in the pillory. Brokers were required to keep a record of all transactions, subject to a fine of £50 for any omission. If they dealt on their own account they were to be fined £500, and were never to act as brokers again. This was a well-meant legislative attempt to separate the good from the bad, the respectable brokers from those to whom the slightly opprobrious name of stockjobber more fitly applied. It is probable that some rough division was the practical result, though as the two classes were necessary to each other, and were all members of the same profession, they could not easily be kept apart. There was an outward severance. The sworn brokers who qualified under the Act were alone permitted to carry on business within the Bank of England. The Royal Exchange was less exclusive; there everybody with the least pretence to a mercantile or financial reputation could meet as on common ground. But even at the Royal Exchange the numerous fry of stockjobbers

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

began to be made uncomfortable by the higher class of merchants, till at last they resolved to fix their headquarters elsewhere, choosing for that purpose an unoccupied spot not far off, which soon acquired celebrity as "Change Alley."

The Act of 1697 was passed for ten years, and at the end of that period it was not renewed, but the distinction it set up between sworn and unsworn brokers has lasted till our day. By the Act only sworn brokers were allowed to transact business, but it is safe to assume that the provision was largely evaded, and when the Act lapsed the legal restriction ceased. But the authority of the Lord Mayor and the Court of Aldermen was an abiding force. Their charters gave them large control over the trades and professions that were exercised within the city, and the brokers were required to submit to the conditions which they exacted. They had to become citizens, if they were not such already, and obtain admission into one or other of the city companies. They had also to present a testimonial, signed by six respectable householders, vouching for them as fit and proper persons to pursue their proposed calling, besides entering into a bond for £1,000 and finding two sureties in £250 each as securities for good conduct. In addition to all this they were charged a yearly rent for the privilege of exercising their profession, and required to give another bond, backed by another surety, as a guarantee for prompt payment. This description applies as regards details to a later period, but it illustrates the discipline which the city authorities exercised from the beginning. With all these precautions taken beforehand the brokers should have been an eminently respectable body of men, but complaints of their doings were constantly being brought before Parliament. Several bills were introduced for the purpose of restraining the "evil practices of the brokers," but, with one exception, none of them appear to have got further than a second reading. It is perhaps not uncharitable to infer the reason for this general failure. Members of both Houses were in the habit of dealing with the brokers, and were often under great obligations to them. It was of some importance for a member to know that if a "good thing" was about to be given away he was sure to have early notice of the golden opportunity. It would often be an accommodation on "settling days" to have the account carried forward on easy terms. Parliament itself was corrupt. It is probable that the proportion of sternly honest men at Westminster was not greater than would be found among an equal number of stockjobbers. In consequence of the various devices that were resorted to by the Government for raising money there was always plenty of room for an exchange of favours. On the whole we need not wonder that Parliament could not bring itself to take severe measures with the

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

brokers, and that the bills which were occasionally introduced for that purpose without being carried further were considered to be sufficient evidence of its virtuous intentions.

'CHANGE ALLEY AND CAPEL COURT.

BUT though Parliament in this negative way threw its shield over the brokering and stockjobbing community, the forbearance shown them could not altogether retrieve their reputation. The cry was constantly heard that they drove the funds up and down for their own advantage, and grew rich by robbing the public. It would be unjust to make too much of these complaints. Dealing in stocks is not like ordinary trade, which is profitable for both buyer and seller. It is a transfer of money values, and when speculation enters into the transaction what one man gains another loses. The bargains may have been perfectly fair, but the losers are sure to growl loudly. There would have been no growling if they had won, but there is a world of difference between winning and losing; and, having lost, they raise the flag of morality and avenge their own want of foresight upon the reputation of the broker. The charge of sharp practice was raised most loudly and persistently against those seceders from the Royal Exchange who fixed their business resort in 'Change Alley, and much injustice has been done them if they were not most open to it. They were a mixed and promiscuous community, comprising adventurers and speculators of every shade. They established themselves in 'Change Alley and the neighbourhood for the best part of a century. On first resorting to it no building was ready for their reception, and they needed none. On fine days they congregated in the street; on wet days, or when winter drew near, there were the coffee-houses with which the neighbourhood abounded. We have nothing now exactly answering to the coffee-houses of those days. The beverage from which they took their name afforded refreshment without stealing away the brains. As places of resort they were open to everybody, but since the same set of persons attended the same coffee-house day after day, such persons gradually acquired a customary right of occupation, and the coffee-house grew into a club. Chance callers would not care to mix with them, any more than a stranger fifty years ago would have cared to venture into the room at an inn reserved for "commercial." Hence they had the coffee-house pretty much to themselves. They probably felt much more at home in their new than they had done in their old quarters. They were all of the same complexion; they were all tarred with the same brush. There were no "superior beings" at hand to look down upon them, as they would have said, with pharisaical scorn. They were no longer made uneasy by

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

ving obtruded upon them, day by day, the plausible spectacle of more rigid virtue than they were content to practice. Here, in the safe obscurity of their coffee-houses, they could make their own rules or dispense with all rules, and do as they pleased. The neighbourhood within which their operations were conducted was pretty well defined. "The centre of jobbing," says a contemporary pamphleteer, "is the kingdom of 'Change Alley and its adjacencies. The limits are easily surrounded in about a minute and-a-half. Stepping out of Jonathan's into the Alley you turn your face full south. Moving on a few paces and then turning due east, you advance to Garraway's. From thence, going out at the other door, you go on still east into Birchin Lane. Then, halting a little at the sword-blade Bank, you immediately face to the north, enter Cornhill, visit two or three petty provinces there on your way to the east, and thus, having boxed the compass and sailed round the stockjobbing globe, you turn into Jonathan's again." These miscellaneous quarters long continued to be the centre of stockjobbing operations. It is 'Change Alley that figures in the censures of moralists and in the invectives of Walpole and Pitt. It is to 'Change Alley that city merchants and even bankers, as well as the crowd of speculators of a more humble rank, resorted when they wished to back their sagacity or try their luck. The sworn brokers found accommodation at the Bank of England, first at Grocers' Hall and afterwards at its permanent home in Threadneedle Street. The Bank had the management of the National Debt, and it was there that all transfers of stock were recorded. About the year 1770 the sworn brokers also removed to 'Change Alley, where they formed themselves into a society, and for the first time called the place in which they met the Stock Exchange. In 1801 they erected a building in Capel Court for their exclusive use, and the present building, opened in 1853, and known throughout the world as the London Stock Exchange, stands on the same site. The formation of a society and the adoption of disciplinary regulations no doubt exerted a wholesome influence over the whole of the stockjobbing community. By degrees the scattered clans were brought together, and all found a shelter under the same roof.

STOCKJOBGING OPERATIONS.

FROM this slight sketch of what we may perhaps call the external fortunes of stockjobbing, let us turn to some of the incidents illustrative of its growth. They are chiefly connected with the financial circumstances in which the Government found itself throughout the last century, and with the measures to which it had recourse in order to meet its necessities. With the exception of the

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

period covered by the administration of Sir Robert Walpole, it was a century of incessant war; one conflict was no sooner over than another was begun or seen to be looming at no great distance. The national income was insufficient to meet the cost of the campaigns that were undertaken, and of the naval expeditions that had to be fitted out. Sometimes, as at the close of the war, which lasted almost to the end of Queen Anne's reign, the Government was living literally from hand to mouth. Large floating debts were incurred which it was not easy to find the means of paying off, and as no settled system of finance had been brought into operation the Government was ready to listen to any device which might afford temporary relief. This led to the founding of the South Sea Company, whose chequered career we lately had occasion to narrate. The company raised eleven millions of capital and lent it to the Government; the debts were liquidated and the company did business with the annual interest. This first transaction led to one of immensely greater magnitude a few years later, when the company took upon themselves the entire debt of the Government, redeemable and irredeemable, raising the needful capital by subscriptions to their stock, and promising to all who subscribed a return "beyond the dreams of avarice." This gave the impulse to one of the most remarkable crazes ever known. All London went mad for a time. The coffee-houses in 'Change Alley could not hold the crowds who swarmed there to make their fortunes, and tables had to be set up in the streets. This was playing a high game, but there was a lower one equally lucrative, and it was possible to combine both. During the period of extreme impecuniosity the Government had been obliged to pay discharged seamen in paper instead of cash. The paper did not bear the imprint of the Bank of England, with its promise to pay and the certainty of being redeemed on presentation. It was a mere ticket, with the amount due to the bearer inscribed thereon. These tickets would not pass as ready money. The tavern-keepers at Plymouth, or Portsmouth, or Wapping, would only accept them at half their value, or perhaps refuse them altogether. Here was an opportunity for the gentlemen of 'Change Alley. Their agents sought out the seamen and bought up their tickets at a discount of perhaps 30 or 50 per cent. In this way a large part of the wages due to discharged crews went into the pockets of speculators. Thomas Guy, the founder of Guy's Hospital, is reputed to have laid the foundation of his vast fortune by buying up the seamen's pay tickets. He was also one of the lucky investors in the stock of the South Sea Company. At the outset he held forty-five thousand pounds worth of the company's stock, and as the price rose he sold out, part of it at a premium of 300 per cent and the rest at 600 per cent. He died worth half-a-million sterling. As a member of the Stationers'

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

Company and an enterprising publisher he held a good position, but there is not much doubt that the greater part of his gains were made in 'Change Alley.

Another of the devices to which the Government resorted for raising money was that of lotteries. The plan usually adopted was to give away in prizes a sum equal to ten pounds on every ticket issued. This was the cost to the Government. For every thousand tickets issued the sum set apart for prizes would be ten thousand pounds. The contractors to whom the tickets were allotted would pay for them at the rate of seventeen or eighteen pounds each, according to the bargain that might be made, and the difference between ten pounds and the price at which they were sold would be the profit of the Government. The contractor would sell the tickets for the highest sum they would fetch, perhaps twenty pounds each, or more, and the difference would be his share of profit on the transaction. People who could afford it would buy a whole ticket, but the poor had to be considered. To suit their means the ticket would be divided into halves, quarters, eighths, sixteenths, thirty-seconds, or even smaller portions. There was this advantage in subdivision, that it greatly extended the market and enabled the contractor to make a higher profit, the smaller portions being sold at a dearer rate than the larger, or than the whole ticket. It is easy to imagine the flood of demoralisation which these lottery schemes let loose upon the country. The mania of avarice seized upon all classes, down to the very poorest, and the fever of expectation grew as drawing day approached. Protests were not wanting, neither were arguments in defence. Some of the latter were borrowed from Holy Writ. Was not the land of Canaan distributed by lot? Was not the sin of Achan discovered by casting lots? Nay, did not the Apostles cast lots to determine who should succeed to the ministry of Judas? "Biblical criticism" had not made much progress in those days, and the arguments would no doubt pass muster with many.

The State lotteries were on a great scale. The prizes were not always paid in money, but were sometimes funded in annuities, entitling the winner to so much interest yearly. As the prizes were considerable, the investment would amount to what many would regard as a fortune. In 1746 a loan of three millions was raised on 4 per cent annuities, and a lottery of fifty thousand tickets at ten pounds each. The following year a million was raised by the sale of a hundred thousand tickets at the same price, the prizes being funded in perpetual annuities. As soon as it was known that a lottery was to be founded, it became an important question who should get the tickets. The concession was too important to be confined to a few. Ministers had their favourites to whom a dozen tickets at a moderate

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

price would be an acceptable present. A steady voter in the House of Commons might rely upon his claim being considered. As a check upon abuses, a law was passed restricting to twenty the number that could be allotted to any one person; but it was possible to evade the statute, and it is said that this was frequently done. The most flagrant of detected cases was that of Manasseh Lopez, a prominent figure on the Stock Exchange. He bribed the Lottery Commissioners to accept a long list of fictitious applicants for tickets, all of which came into his own hands. He was prosecuted by the Attorney-General in the Court of King's Bench, and fined a thousand pounds, probably not a fiftieth part of his gains by the transaction. The profitableness of lottery speculations may be inferred from the fact that in 1780 four tickets were allotted as a bonus to every subscriber of one thousand pounds to a loan of eleven millions. At the rate of issue they were worth just ten pounds each. It was the sum they could be made to yield that tempted the investor.

Speculation was naturally rife on the announcement of a new loan. Bankers, merchants, and members of the Stock Exchange were then all on the alert to secure a share in the allotment, and there was much room for favouritism and jobbery. Mr. Francis, in the work already mentioned, supplies a number of illustrative instances. In 1778 there was an unusual delay after the applications were sent in. Political events were threatening and the funds were falling. The applicants grew anxious, and their fears were confirmed when they found that the whole of the loan was saddled upon them. The following year a new loan was proposed and they renewed their applications, hoping under the more favourable aspect of affairs to be able to recoup their losses. This time they got nothing; the scrip went to a premium, and ministers divided it among their friends. In 1780 half the loan was distributed among members of the House of Commons, and on terms so favourable that it at once went up to 11 per cent premium. In 1796 a loan for eighteen millions was proposed, and it was announced that it would be conducted on the principle of free and open competition. On the day fixed for settling the preliminaries three competitors presented themselves, Mr. Mellish, Mr. Morgan, and Mr. Boyd. Before beginning business, Mr. Boyd asked for a few words in private with the Chancellor. The request was granted, and on his return the Chancellor told Messrs. Mellish and Morgan that if they bid for the loan Mr. Boyd should nevertheless have it if he was willing to bid one-half per cent higher. As a matter of course they refused to bid, and Mr. Boyd had it on his own terms. The public lost nearly half a million in the difference between the price he offered and that which his rivals were prepared to give. "There was also," says Mr. Francis, "a curious story in circulation of bills to the amount of seven hundred thousand pounds

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

ving been drawn upon the Treasury in fictitious names and with fictitious dates, and it was asserted that when the loan was contracted it was absolutely known by the Cabinet that the King's Speech would use the funds and add 5 per cent to the gains of the contractor. Before the first payment two millions one hundred and sixty thousand pounds was the profit on a loan of eighteen millions." Of course the lucky man did not keep all this money to himself. The larger part would be shared among his confederates of the Stock Exchange, and a handsome balance, measured, perhaps, by the amount of the fictitious Treasury bills, would take the form of gratuity or of stipulated payment to persons behind the scenes.

DEALING IN FUTURES.

THE charge of encouraging gambling, which has been one of the standing impeachments of the Stock Exchange, is founded upon the practice of speculating in future prices, that is in buying or selling, not for immediate delivery, but against some future time, which is fixed when the bargain is made. When the transfer between seller and buyer takes place at once, as in the case when actual investment is intended, there is no uncertainty as to price, and no room for speculation. But when the sale or purchase arranged to-day is to be completed a fortnight or six weeks hence there is no telling what variations may happen during the interval, or what the price may be when settling day arrives. In this case the operator backs his judgment and takes his chance. If he has sold and prices fall during the interval he will be able to deliver at a lower price than that agreed upon, and will gain by the transaction; in the contrary event he will lose. But no delivery ever takes place, or is ever contemplated. All that is done on completing the transaction is to settle the differences. There can be no mistaking the nature of the transaction. It is simply a bet on a future event, just as much as a bet upon the results of the Derby or the St. Leger. In the one case the speculator bases his venture upon his estimate of the probabilities of the market; in the other upon his opinion of the qualities of the horse, taking into account its previous achievements. The morality of the affair depends in part, perhaps, upon the ability of the loser to pay up what he has lost; but in Stock Exchange speculations there is a temptation to go in for "neck or nothing," and the losses may be enormous. It has been said that time bargains originated in the practice of the Bank of England of closing its books for six weeks periodically while making out the dividends. As no transfer could be made during these intervals, it was customary to buy and sell for the opening, and from this beginning the practice became common. It may be doubted whether this is the true explanation. Time bargains were known in Holland long before the Bank was

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

founded, and they were sure to be imported. An endeavour to suppress them is connected with the name of Sir John Barnard, Lord Mayor of London in 1737, and for many years member of Parliament for the city. Mainly through his influence an Act was passed making losses by time bargains irrecoverable. It had but little deterrent effect from the outset, and soon ceased to have any. What it did was to increase the risks of the broker who had to bear the losses which the speculator who employed him chose to repudiate. Time bargains formed a principal part of the business of the Stock Exchange, and the broker was willing to do it on these hard terms rather than not do it at all.

“KINGS” OF THE STOCK EXCHANGE.

It is, or perhaps is not, remarkable that the men who have risen to the greatest eminence by their operations on the Stock Exchange belonged to the Jewish persuasion. They came of a race which among its various adaptabilities seems to have a special genius for finance, and they have been characterised by a largeness of conception and a daring singularly combined with prudence in carrying out their plans, which have placed them far ahead of their contemporaries. Addicted to great transactions, they have frequently played an important part in the financial operations of the State, and may be said to have formed a link between the Government and the Stock Exchange. One of these great Jewish financiers was Sampson Gideon, the son of a West India merchant, of Portuguese extraction, who settled in London and became a freeman of the city. Gideon began business when only twenty years of age with a capital of £1,500, which in a couple of years was increased to £7,900. In 1729, at the age of thirty, he was admitted a sworn broker with a capital of £25,000 and at his death, in 1762, he left a fortune, chiefly invested in landed estates, which was valued at £580,000. He became the “great oracle and leader of Jonathan’s coffee-house in ’Change Alley.” In 1742 Walpole consulted him as to the best means of raising a loan for the Spanish war. In 1745, when the Pretender had marched as far as Derby and the funds were falling, he risked all he had in the support of the Government, and enabled them to raise a loan of £1,700,000. He advised and carried through a scheme for consolidating the National Debt, and for reducing the rate of interest. In return for these and other services he well deserved to be made a baronet, and this was his ambition, but it was at that time considered to be quite out of the question to bestow such an honour upon a Jew. There was one way out of the difficulty. “He breed his children Christians,” writes Horace Walpole. His son Sampson was therefore a duly qualified candidate. He was then a boy at Eton, and he was made a baronet at the age of fifteen. Gideon ceased

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

profess himself a Jew without professing himself a Christian, alleging that he was too old to change. Among the bequests at his death there was one of £1,000 to the synagogue of Bevis Marks, to which the condition was attached that he should be buried among his own people, and another of £2,000 to the Society of the Sons of the Clergy.

Abraham and Benjamin Goldsmid, who may be regarded as Gideon's successors, were born in Holland, and came to England with their father the year after Gideon's death. In 1777 they started business as bill-brokers. "Of singular capacity and of equally singular good fortune, the firm of which they were the members rose from comparative obscurity to be the head and front of 'Change Alley.'" They were soon able to compete with the great banking houses for the Government loans, and their success in wresting so much of this business out of the hands of those who had hitherto had a monopoly of it was regarded as an important event in the Stock Exchange, where their influence was supreme. For a long time they were regarded as the kings of the monetary world, while their genial hospitality and the large benevolence they displayed won general esteem. A sad fate awaited them both. In his later years, Benjamin was subject to fits of melancholy, and in 1808 he committed suicide. In 1810 Abraham Goldsmid, in conjunction with the Barings, brought out a Government loan of fourteen millions, and the death of Sir Francis Baring, which occurred shortly after, left the sole burden on his shoulders. The success he had enjoyed for so many years created envious rivals. There was a conspiracy against the loan, the scrip fell day after day, and under the depression which this failure produced he put an end to his existence. The two brothers were unbounded in their beneficence. Benjamin is said to have been the real founder of the Royal Naval Asylum before it was taken over by the Government. At Abraham's death, I O U's to the value of £100,000 were found in his drawers and torn up as waste paper. They had been used as a mere form to veil the fact that they were really gifts. The news of his death caused a heavy fall in consols. "We question," said the *Morning Post* of that date, "whether peace or war suddenly made ever created such a bustle as the death of Mr. Goldsmid."

Before Abraham Goldsmid had passed away another and greater Jewish financier appeared upon the scene. Nathan Meyer Rothschild, the son of Meyer Anselm Rothschild, of Frankfort, the founder of the house, came to England in the year 1800. His first destination was Manchester, where he entered upon the business of a merchant. It is said that he manufactured the goods he exported, and contrived to make a treble profit. But his genius lay in another direction, and he soon removed to London, where he commenced

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

operations on the Stock Exchange. The death of Sir Francis Baring, followed soon after by that of Abraham Goldsmid, left the primacy vacant, and Rothschild aspired to fill it, as he soon did. His knowledge of continental affairs, and the extensive correspondence he carried on with trusty agents abroad, gave him a signal advantage over those with whom he did business. He was an adept in all the arts that had ever been employed for raising or depressing the prices of stock, and he was deterred by no scruple from using them. He worked chiefly through brokers, of whom he had more sets than one, employing them for different purposes, and conducting his strategy like a skilful general. One day his agents would have orders to sell on a large scale. The quantity of stock poured upon the market could not fail to excite attention, and when the word went round that Rothschild's people were selling others would sell too. When the depression, so carefully compassed, had reached the lowest point compatible with the safety of the operation, other agents would have orders to go in and buy. There would soon be a rebound, but in the meantime the field had been swept and the financial garners filled. The traditional stories told of him are innumerable. He always had the earliest news of any important event which was likely to influence prices. If it happened to be favourable he would take his usual place in the Stock Exchange with a pensive and downcast look, as if foreboding some dreadful catastrophe. The cue, strengthened by the suspicious action of those who were known to be his brokers, would soon be taken; but while a few were ostentatiously selling on his behalf a much greater number would be buying, and by the time the news came the operation would be completed. In the matter of beneficence he was unlike his predecessors. He was seldom known to give anything away, and it is probable that on this point his right hand was no wiser than his left. How many millions he was worth it would be hard to say, but he established a financial dynasty which still flourishes.

FOREIGN INVESTMENTS.

WE are now approaching a period from which there dates an enormous extension of the business of the Stock Exchange, with corresponding effects upon the industrial and social life of the country. The Battle of Waterloo wound up three-quarters of a century of almost incessant war, and the nation entered upon what proved to be forty years of peace. The sudden cessation of a heavy war expenditure was followed by a serious reaction, during which our manufacturing and trading interests suffered severely. In 1797 the Bank of England had ceased to pay cash for its notes, and from then till 1819 the business of the country was carried on with an

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

nonconvertible paper currency. It was natural that the notes of the bank should suffer considerable depreciation as measured by gold, and when cash payments were resumed all who had contracted obligations in the depreciated currency had some ground for complaint. The step was absolutely necessary, and the longer it had been deferred the worse would have been the consequences, but the strain was none the less severe while it lasted. Then there gradually came a rebound. The attention which had been absorbed by military operations was now concentrated upon peaceful undertakings. The speculative activity which had hitherto found scope in Government loans and in military and naval contracts was now in search of fresh openings, and the Stock Exchange had to find conquests in new fields. A succession of abundant harvests kept the farmers in good spirits and gave briskness to the home trade, while the course of political events seemed to offer encouraging prospects abroad. Canning was at the Foreign Office, and one of the questions which he had to determine was the policy to be adopted with respect to the Spanish colonies in America. At the Congress of Verona the confederated sovereigns of the Continent, calling themselves the Holy Alliance, resolved to put down the first symptoms of constitutionalism by force of arms in every part of Europe to which their power extended. Spain was the country which chiefly challenged their interference. Ferdinand VIII. had suppressed the constitution which he found in force when the overthrow of Bonaparte enabled him to mount the throne, and his subjects were in revolt. England denounced the projects of the Holy Alliance, and her influence was sufficient to prevent joint action by what would now be called the concert of Europe, but the restored Bourbon, Louis XVIII., accepted a commission from his brother despots, and marched an army into Spain. While declining to interfere in the affairs of Spain, England was resolved that no hostile measures should be taken against those Spanish colonies which, under the pressure of recent events, had severed their connection with the mother country and set up for themselves. Mexico, the States of Columbia, and Buenos Ayres, this last corresponding to what has since been known as the Argentine Confederation, had declared their independence. Canning promptly recognised them as independent powers, uttering on that occasion his famous saying, that he "called in the new world to redress the balance of the old." Huskisson was then at the Board of Trade, endeavouring by means of reciprocity treaties to extend the area of British commerce. Here was a favourable opportunity. Treaties of commerce were entered into with the enfranchised colonies, and the eyes of capitalists and traders were soon turned towards them as promising fields for investment.

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

In these circumstances, so inviting to enterprise, a great wave of speculation set in. Joint-stock companies were founded for all sorts of purposes, some with a promise of profit in them, but most without any. A list is given of two hundred and twenty-six which were started in the year 1824 and the early part of 1825, with an aggregate capital of more than one hundred and seventy-four millions. This, however, was but nominal. In most of them only 5 or 10 per cent of the capital was subscribed, and as almost all went to a premium on this basis, those who sold out often made eight or ten times as much money as they had risked. Such gains would naturally tempt to fresh ventures, and within certain sure limits as regards time the process might go on indefinitely. The openings afforded by the newly recognised states, as well as by the old colonies of Portugal, also asserting their independence, were not forgotten. Mexico and Peru were alluring names; recollections of former days associated with them visions of unbounded wealth. One had only to go there and open a mine in order to be sure of enormous dividends for all who took part in the enterprise. Several companies were floated for this purpose in 1824, and the prices at which their shares were quoted at an interval of a month will show how the public responded to the assurances of the projectors. The shares of the Anglo-Mexican Company of £100 each, on which £10 was paid, stood at 33 per cent premium on the 10th of December, and at 158 per cent on the 11th of the following January. The shares of the Brazilian Company, of the same amount, jumped from ten shillings discount at the one date to 70 per cent premium at the other. The Columbian Company for pearl fishing rose from 19 per cent premium to 82; the Real del Monte, with shares of £400 each, on which £70 was paid, from £550 premium to £1,350; and finally, the United Mexican shares of £40 each, on which the unusually large proportion of £10 was paid, went in that short period from a premium of £35 to one of £155. The smallness of the sums paid and the largeness of the profits reaped, together with the touch of uncertainty which rested upon these schemes, turned transactions in them into gambling. It is enough to say that the madness seized all ranks; but one can hardly refrain from quoting the elaborate classification, to which a contemporary chronicler has recourse, in order to convey an adequate impression of its violence. "All the gambling propensities of human nature," says the Annual Register for 1825, "were constantly solicited into action, and crowds of individuals of every description—the credulous and the suspicious, the crafty and the bold, the raw and the experienced, the intelligent and the ignorant, princes, nobles, politicians, placemen, patriots, lawyers, physicians, divines, philosophers, poets, intermingled with women of all ranks and degrees, spinsters, wives, and widows—hastened to venture some

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

tion of their property in schemes of which scarcely anything was known except the name."

PANIC OF 1825.

THE new States which England had recognised were in want of money, and the first use they made of our friendship was to come to for loans. The Stock Exchange was willing to do its best to oblige them. Very little was known of their internal condition or of their solvency, but they were interesting from a political point of view, and in a prospectus it was easy to give such a representation of their resources as would win confidence. In the course of three or four years ending with 1825 the loans raised on their behalf amounted to fifty millions. This was the first great launch of the Stock Exchange on a voyage of speculation, which has since touched almost every country in the world, and has produced a wonderful record of casualties and disappointments. The mines of Mexico and Peru swallowed more gold than they yielded, and the companies which started with a premium on their shares, ten or twenty times more in amount than the money paid upon them, had to go without dividends. The spirit of speculation was equally rife in trade. Large purchases were made in South American produce, and prices were paid which the home market could not long sustain. It was the same with exports. What was there which these interesting customers did not want? Their precise wants were not measured very accurately. "It is positively declared," says Miss Martineau, "that warming pans from Birmingham were among the articles exposed (at Rio Janeiro) under the burning sun of that sky, and that coats from Sheffield were offered for sale to a people who had never heard of ice." These speculations, and the injudicious extent to which the banks afforded facilities, brought about the severest financial crisis ever known. Writing on February 12th, 1826, Greville says in his diary, "The last three months have been remarkable for the panic in the money market, which lasted for a week or ten days—that is, was at its height for that time. . . . There is now no panic, but the greatest alarm and every prospect of great distress, and long continuation of it. The state of the city and the terror of all the bankers and merchants, as well as of all owners of property, is not to be conceived but by those who witnessed it." The Bank of England was on the point of stopping. "On the evening of the day on which the alarm was at its worst there were only eight thousand sovereigns left in the till." It is said that the suspension of the Bank was averted chiefly by the accidental discovery of a box containing notes to the amount of a million-and-a-half which had never been issued, and which the public were only too glad to receive. It fared worse with the country banks. They had responded too readily to the calls of their customers. It was easy to issue notes,

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

and so long as they passed for gold all was well. It is said that the banks doubled their circulation in a couple of years. With the reaction came a demand for payment, and the demand could not be met. After the first failure confidence disappeared, and as many as seventy-seven banks went down in the crash. When the money panic was over a commercial crisis began. There were eleven hundred bankruptcies in 1825; in the year after there were two thousand six hundred. One of these bankruptcies involved the ruin of Sir Walter Scott. "Now," he writes in his diary, "to be broken in my pitch of pride and nearly winged (unless good news should come) because London chooses to be in an uproar, and in the tumult of bulls and bears a poor inoffensive lion like me is pushed to the wall."

THE RAILWAY ERA.

THE country recovered but slowly from the great monetary crisis which has just been described. Its immediate effect was to throw large numbers of the population out of employment, and there was much suffering among the poor. The revival of public confidence coincides with the commencement of the railway era, when a new channel was opened for investments, and the area of Stock Exchange operations was extended on a scale beyond any previous parallel. The first railway for passenger traffic—that between Stockton and Darlington, a distance of eight-and-a-half miles—was opened in 1825. The Manchester and Liverpool Railway was opened in 1830 and in the course of the next eight years fifty-six Acts of Parliament were passed, authorising the construction of eighteen hundred miles of railway at a cost of forty-five millions. Naturally the first lines were laid down between the most populous districts. They attracted traffic and paid fair dividends at once. Other schemes were bound to follow. If extension had been gradual, keeping pace with the available resources of the country, and if speculation could have been avoided, all would have gone well. But there was the usual disposition to look upon the new field of enterprise as one which could not fail to be remunerative on any terms. The stock of the new companies was eagerly bought up, and as buyers abounded it soon mounted to a premium. Everybody with money to spare, or able to disengage capital from other investments, was bent upon obtaining some portion of railway scrip, certain that it was "the best thing going." In such a state of the public mind there is never any lack of promoters who are ready to meet the demand which has been created, but the very activity they display helps for a time to sharpen the appetite they seek to satisfy. Much as they furnish, the public are eager for more. This is the explanation of the railway mania of 1846. In November the previous year more than twelve hundred

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

railway bills were lodged with the Board of Trade, representing a capital of five hundred and sixty-three millions, and requiring by Act of Parliament a deposit of fifty-nine millions. This sum exceeded by more than twenty millions the whole amount of bullion and coin in the Bank of England and of its notes in circulation. As soon as these facts were known a great reaction ensued. In the apprehension of a catastrophe people were now as eager to sell the stocks of the new companies as a few months before they had been eager to buy. The large premiums which had been paid upon them disappeared, and for a time railway enterprise in general fell into utter discredit. Of the multitude of companies which had been promoted only a hundred and twenty, or less than one in ten, survived the crisis.

THE RAILWAY KING.

THE early period of railway finance, considered in connection with the transactions of the Stock Exchange, has its most striking illustration in the career of George Hudson, now somewhat dimly remembered as the Railway King. At the height of his fame it was proposed that a statue should be erected in his honour, and £25,000 was voluntarily subscribed for the purpose by his admirers, who represented the wealthiest and, in the sense accepted by the Herald's College, the most distinguished portion of English society. Carlyle, in one of his Latter Day Pamphlets, presents them to us as apostrophising their hero in these terms: "Yes, you are something like the ideal of a man. You out of nothing can make a world or huge fortune of gold. A divine intellect is in you which Earth and Heaven and Capel Court itself acknowledge; at the word of which are done miracles. You find a dying railway; you say to it, live, blossom anew with scrip; and it lives and blossoms into umbrageous flowery scrip, to enrich with golden apples, surpassing those of the Hesperides, the hungry souls of men. Diviner miracle what god ever did? Hudson—though I mumble about my Thirty-nine Articles and the service of other divinities—Hudson is my god, and to him I will sacrifice this twenty pound note, if, perhaps, he will be propitious to me." Hudson was originally a draper in York, but he was from the first, as the phrase goes, "a man of means," and a relative having left him a legacy of £30,000 he retired from business in order to give himself up entirely to railway affairs. His first enterprises appear to have been judicious. He projected and carried out a scheme for constructing a railway from York to various large towns in the West Riding, himself subscribing five hundred shares. He then assisted the Great Northern Company to complete their line to Newcastle, with the intention of carrying it on to Edinburgh. To this project he subscribed five times more than any other

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

director, and personally guaranteed a dividend of 6 per cent. Several lines of railway were then approaching Derby. He proposed and effected their amalgamation, thus forming the nucleus of what has since become the Midland Railway. It may be imagined that the success of these schemes would give a great impetus to speculation, and that the man whose resources seemed boundless, and to whom gigantic tasks seemed easy, would inspire the public with a corresponding amount of faith in whatever he undertook. Honours flowed in upon him. He was twice Lord Mayor of York, he was sent to Parliament as member for Sunderland, he had a sumptuous residence in London, where the aristocracy were only too happy to attend in throngs. He had the honour of including the Prince Consort among his acquaintances. It was found that towards the schemes which were ready for presentation to Parliament at the end of 1845 Hudson figured as a subscriber for more than three hundred thousand pounds. The magnitude of his transactions tempted him at last to sinister devices. On the amalgamation of the Newcastle and Berwick Railway Company with that of Newcastle and South Shields, he increased the authorised issue of shares from forty-two thousand to fifty-six thousand, making no entry of the fact in the account books. Of these additional shares he pocketed nearly ten thousand, and made £145,000 by the fraud. As the chairman of the Newcastle and Darlington Railway, he bought the York and Darlington on what are said to have been "ruinous terms," but the price of the shares at once rose from £200 to £255. He went to the help of the Eastern Counties Railway Company, which was in deep embarrassment. He saw that the readiest way of sending up the shares was to pay good dividends, and as the income yielded none he paid them out of capital. Then came the panic, ending in utter collapse, of 1847. In a few months the shares of the ten leading railways suffered a depreciation which was estimated at seventy-eight millions. The Railway King was summarily dethroned, and homage turned into execration. Heavy claims were made upon him, which, as his own fortune had disappeared, he was unable to pay, and he spent some months in York Castle for contempt of the Court of Exchequer in not doing what he had not the power to do. He lived for the rest of his days on a small annuity purchased by a few friends to save him from the workhouse.

JOINT-STOCK ENTERPRISES.

THE last and greatest extension of the area of Stock Exchange operations is due to the change of the law with respect to joint-stock companies. By common law it is not lawful for more than ten persons to join in carrying on a bank, nor for more than twenty

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

persons to join in carrying on any other kind of joint-stock company. Persons desirous of conducting joint-stock enterprises on a larger scale could only do so, till within recent years, by obtaining a Royal Charter or an Act of Parliament. Railway companies are joint-stock companies on the largest scale, and there are so many matters in which, as in the compulsory sale of land, they need coercive powers that in their case an Act of Parliament is always necessary. There are other companies, also on a large scale, such as have been recently formed for administering the territories included within the sphere of British influence in Africa, whose requirements may be best met by a charter from the Crown. But there are smaller enterprises corresponding to the business of a private trader in which it was long felt to be desirable that any number of persons should be free to invest their capital without going to the expense and trouble of an application either to Parliament or the Crown. This need was met by the Joint-Stock Companies Act of 1844, but it was tentative in its character, and too full of restrictions to give general satisfaction. It adhered, moreover, to the principle that the holders of stock should be responsible to the last farthing of their property for the debts and losses of the company. There were many who contended that to insist upon unlimited liability was an unnecessary restraint upon investment, and a hardship upon the middle and working classes, who ought to have an opportunity of employing their savings in such undertakings without risking everything they possessed. In reply to objectors it was urged that if the liability of the shareholders was known to be limited to the amount of their shares, and if the sums paid and remaining to be paid were also known, and if, in addition to these precautions, the annual accounts of the companies were open to inspection, all who did business with such companies would have all the means necessary for protecting their own interests. These arguments prevailed. Public opinion was generally favourable to the proposed change. Though the poorer classes were put to the front as those who would chiefly gain by it, the wealthier sections of society, including the landed gentry and the peerage, saw in it the promise of opportunities which they might be able to turn to account for increasing their incomes. Forming, perhaps, an exaggerated estimate of the average profits of trade, and allured by the large fortunes acquired by a few successful men, they were not unwilling to become traders to a limited extent if they could do so without risking their mansions and estates. They saw no reason why plebeians alone should be allowed to grow rich, and they were quite prepared to speculate with a portion of their capital if it could be done without jeopardising the rest. The first Limited Liability Act was passed in 1855, and it was followed by several others; but they were all included in the comprehensive Act of 1862. The procedure

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

established by that measure is that any seven persons by subscribing a memorandum of association which states the name, place of business, and general objects of the proposed company, and delivering it to the Government Registrar, may obtain a certificate of incorporation with or without limited liability. Almost all the vast multitudes of joint-stock companies which have since been formed and are yearly coming into existence adopt the principle of limitation. Since 1879 banks are free to limit the liability of their shareholders as regards the whole of their business, except the note circulation, and almost all the joint-stock banks both in London and in the country have availed themselves of this concession.

QUOTATION ON THE STOCK EXCHANGE.

THE first object of all joint-stock companies, excepting such as, while availing themselves of the Limited Liability Acts, are practically of a private character, is to be "quoted" on the London Stock Exchange, that is to have the terms stated on which business may be done. Since this is not a matter of right but of privilege, to be determined by the committee of the Stock Exchange, and since the privilege is never granted unless certain stringent conditions have been complied with, the fact that the shares of a company are quoted on the Stock Exchange is to some extent a proof of its respectability and of the good faith of its promoters. The first condition laid down by the Stock Exchange committee is that all bargains in the scrip of a new loan or the shares of a new company are contingent on the appointment of a "special settling day." In order to obtain this privilege application has to be made to the secretary of the share and loan department, who is required to give a week's public notice that such an application has been made before he submits it to the committee. The application must be accompanied by the following documents:—The prospectus, the Act of Parliament, where, as in the case of railway companies, a special Act has been required, the articles of association, the original applications for shares, the allotment book, signed by the chairman and secretary to the company, and a certificate, verified by the statutory declaration of the chairman and the secretary, stating the number of shares applied for and unconditionally allotted to the public, the amount of deposits paid thereon, such deposits being absolutely free from any lien; the banker's pass book and a certificate from the bankers stating the amount of deposits received. The rule laid down for the guidance of the committee runs as follows:—

The committee may order the quotation of a new company in the official list provided that the company is of sufficient magnitude and importance; that the documents specified in the previous rule have been duly furnished; that the

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

prospectus has been publicly advertised and agrees substantially with the Act of Parliament, or the articles of association, and, in the case of limited companies, contains the memorandum of association; that it provides for the issue of not less than one-half the nominal capital, and for the payment of 10 per cent upon the amount subscribed, and sets forth the arrangements for raising the capital, whether by shares partly or fully paid up, with the amounts of each respectively, and also states the amount paid, or to be paid, in money or otherwise, to concessionaires, owners of property, or others, on the formation of the company, or to contractors for works to be executed, and the number of shares, if any, proposed to be conditionally allotted. That two-thirds of the whole nominal capital proposed to be issued has been applied for and unconditionally allotted to the public (shares reserved or granted in lieu of money payments to concessionaires, or owners of property, or others, not being considered to form part of such public allotment). That the articles of association restrain the directors from employing the funds of the company in the purchase of its own shares, and that a member of the Stock Exchange be authorised by the company to give full information as to the formation of the undertaking, and be able to furnish the committee with all particulars they may require.

This searching and comprehensive rule should go far towards vindicating the character of the Stock Exchange. It is true that the documents produced may not be always trustworthy. Among the promoters of companies there are those who are adepts in the arts of evasion. Such persons are quite equal to the task of manufacturing a "public" for their own special use, and even of putting forward officials who have no existence. A company which is really a fraud may be technically correct at all points. The committee of the Stock Exchange cannot possibly investigate an undertaking with the minuteness of the Court of Bankruptcy or a Court of Criminal Law. They have no power to cross-examine on oath. It is enough that they do all they can to avoid giving their sanction to enterprises which are unworthy of public confidence, and to secure the integrity of the official list.

AGGREGATE INVESTMENTS OF THE WORLD.

THE Stock Exchange has become the most cosmopolitan of institutions. It has to do with the financial operations of every civilised country on the face of the globe. It has no antipathies, social, political, or religious. It deals with men the moment they begin to borrow, whether as States or as voluntary associations, and it knows how to reap a harvest of profit from their very debts. It has no anxieties on the question of solvency. Various degrees or varying probabilities of solvency serve its purpose better, since they promote that frequency of "rise and fall" which tempt the operator. "Egyptians," as they were ten years ago, supplied much more business and opened a far richer vein than an equivalent amount of Consols at the same date. The operations of the Stock Exchange cover the financial side of all the larger undertakings, commercial

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

and industrial, throughout the world. The articles in which it deals are situated in all climes. Through the Stock Exchange you may buy any morning shares in an American railway, or a Peruvian mine, or in the Beyrout waterworks, or the Barcelona tramways, or the Bahia sugar factories, or the Indianopolis breweries, or the Paraguay land warrants, or the Rio de Janeiro flour mills, or, coming nearer home, in Long's Hotel, in Eastmans, or Rylands and Sons, or in any other of the thousands of enterprises which spread themselves out like transferable wares in the vast market of the world. The national debts of all nations are quoted on the Stock Exchange, and we may please ourselves to what great potentate or republic we shall take the position of a creditor. The Stock Exchanges of London, Paris, Berlin, Amsterdam, Vienna, and New York form parts of one great financial confederation, daily acting and reacting upon each other. The telegraph announces to each of them any important change in current quotations the moment it happens, and for all practical purposes brings them together on the same spot. The magnitude of the sums dealt with baffles the imagination and heaps upon us figures which are only found elsewhere in the calculations of astronomy.

We need not perplex ourselves with the incalculable, but a few totals may be given in round figures. In the year 1890 two thousand five hundred new joint-stock companies were registered in London under the Limited Liability Acts, representing an aggregate capital of two hundred and eighteen millions. About the same number were registered the year before, but the capital represented was larger, and in 1888 it was larger still, amounting to nearly three hundred and forty millions. It is needless to say that these vast sums were not actually paid down in pounds sterling, but they give us the amount of capital which the companies were authorised to raise, and upon which transactions took place. Turning now to the nominal value of the securities quoted in the official list of the Stock Exchange, we find the following among the principal aggregates:—British funds, eight hundred and forty-seven millions; the Corporation stocks of the United Kingdom, seventy-five millions; Colonial and Provincial registered and inscribed stocks, two hundred and forty millions; Foreign stocks, bonds, &c., of which the coupons are payable in London, seven hundred millions; Foreign stocks the coupons of which are payable abroad, eighteen hundred millions; British railways, including stocks and shares of all kinds, nearly eight hundred millions; Indian railways, one hundred and ten millions; American railways, including shares and bonds, six hundred millions; and other Foreign railways, two hundred and forty millions. As samples of smaller aggregates, we may take the banks, fifty-nine millions; breweries and distilleries, forty-three millions; ga

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

companies, twenty-eight millions; waterworks, sixteen millions; and tramways and omnibus companies, eleven millions. The total value of the securities quoted in the official list is more than six thousand two hundred millions. We can form no adequate conception of this amount. It would defray the cost of a journey sixty times further than the sun, reckoning at the rate of a guinea a mile. If a man had to count it, allowing one sovereign per second and twelve hours' work per day, he might hope to finish the task in four hundred years.

CONCLUSION.

ONE or two observations which occur to us may fitly close this review of the origin and growth of stock exchanges. Hard things are often said of the Stock Exchange. "The morality of the Stock Exchange" is referred to in a way which seems to imply that it is necessarily bad, or that at any rate it is below the average mercantile standard, and the proceedings in our courts of law in connection with "bogus companies" are cited without much reflection as if they proved the truth of this condemnatory estimate. The estimate itself and the censures founded upon it are essentially unjust. If they sometimes seem to be warranted by the conduct of individuals it should be remembered that there are black sheep in every profession, and that if the faults of one person or of a few are to be held to impeach the business in which they are engaged there is no branch of trade which would not have to be put under the ban. The Stock Exchange is a useful and even a necessary part of the social apparatus. The reason for its existence is found in the fact that there are undertakings of great importance to society which are too great to be carried out by one man. If they are to be ventured upon at all it is necessary that a number of individuals should club their resources, the motive being that those who assume all the risks will divide among them the profits of the enterprise. Where co-operation is not necessary on account of the magnitude of the undertaking it is seen to be desirable on other grounds. What shall a person of moderate means do with his savings? To let them lie in the bank is almost the same as putting them into an old stocking, yet they are not enough of themselves to equip a business. When hundreds and thousands are in this position their common want is precisely met by an arrangement which enables them to put their savings together and employ them profitably. But property of this kind loses half of its value if it is not capable of being transferred at the convenience of the owner, and in a concern of any magnitude there must be proprietors who want to sell and outsiders who are willing to buy. To conduct such transactions is the function of the

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

Stock Exchange, and it is so necessary a function, considering the multitude of such transactions which have to be negotiated, that if the Stock Exchange did not exist to-day we should have to create it to-morrow. It forms no part of this function to inquire into the commercial value of the property transferred. That is the business of the buyer who may be supposed in his own interest to have satisfied himself on that point. All that the Stock Exchange can be expected to do is to take all reasonable care that the facilities it affords are not bestowed upon schemes which are wanting in good faith, and, if not fraudulent, are so constituted as to offer opportunities for fraud. This is also the concern of Parliament, which has exacted stringent conditions by way of precaution, and the Stock Exchange, as we have seen, not only insists upon these conditions being fulfilled but has added other and more rigorous conditions of its own.

It is said that the Stock Exchange affords facilities for gambling, and this cannot be denied; but the burden of the charge should be put upon the right shoulders. Those who deal in revolvers, or sharp implements, or who sell poisonous drugs, may be said to afford facilities for suicide and murder, as they undoubtedly do, but they are not held open to blame on that account. The charge is preferred chiefly in connection with time bargains, and these constitute a large, perhaps the largest, part of the business done on the Stock Exchange. The goods dealt in—viz., shares—do not pass from one set of hands to another when they are bought and sold. The transaction is carried on for a time agreed upon, and the difference between the prices ruling at the beginning and at the end of the bargain is then adjusted. Is this a proper thing to do? In order to answer the question we have to consider the prices as separable from the things to which they relate. They are money values and constitute a class of commodities by themselves. There are persons who make it their business to deal, it may be said to speculate, in such commodities. They buy to-day with a view to the prices which they expect to rule at some future time. They do not act blindly, and they do not trust at all to chance. They are generally well-informed and always believe that they are. They make inquiries, they keep their eye on the markets, they watch the state of trade and weigh all the circumstances that are likely to depress or raise prices, and they then proceed to buy or sell, doing so in a commercial spirit, just as they would do if dealing in commodities of another sort. It is very difficult to draw any line between transactions of this kind and others which take place constantly and pass without a word of censure. There is not a merchant who does not make his purchases to-day with a view to the prices which he expects to prevail six weeks or three months hence. He not only does it; he must do it to transact any business at all. In this sense all large operations in buying or

STOCK EXCHANGES: THEIR ORIGIN AND HISTORY.

elling are and must be speculative, involving the possibility of loss as well as of gain, and sometimes on a large scale. The practice of making bargains without a view to delivery prevails in the cotton market as well as in the share market. The mass of transactions in cotton has been known to exceed several times over the entire value of the cotton crop. It is hard to say of any particular bargain that it is wrong on moral grounds, and perhaps no dogmatic rule can be laid down. What may be safely censured is excess, which is always imprudent, and where that is indulged in it is only too likely to have very avenging consequences.

It is often forgotten that prudence is itself a virtue, and as such an essential part of morality. The ancient ethical philosophers regarded it not only as a virtue, but as the first of the four cardinal virtues, temperance, fortitude, and justice being the other three. The higher morality which religion enjoins has perhaps tended to displace it from its proper position and to throw it into the shade. We cannot very well soar too high in morals, but there is an attendant risk of falling too low, and while thinking of the great things above us it is possible to overlook or to undervalue the duties which lie at our feet. Prudence is the habit of doing everything with deliberation and foresight. It is the prerogative of man alone, and it holds the chief place in the economy of human life. From how many snares would it have saved us? How many of the follies we have had to describe, with all their resultant miseries, would it have prevented? With it there would have been no manias, no "bubbles," no panics, and no fools. It is needful everywhere, at every step, and in all callings, but, if it has to be whispered as a duty more audibly to some than to others, it may perhaps be to those who do business with the Stock Exchange.

THE COURSE OF BRITISH TRADE.

BY GEORGE HOWELL, F.S.S., M.P.

THE British Isles form but an insignificant spec, comparatively speaking, on the map of the habitable globe. Situate in a north-western corner of the Eastern Hemisphere, the United Kingdom looks insignificant even as part of that hemisphere, leaving entirely out of consideration the Western Hemisphere, with its vast continents and almost innumerable islands, many of which are larger in extent than Great Britain. But small as Great Britain is in area, and also in population, by comparison with the total populations of the various countries of the world, she is chief among the nations. Doubtless she owes much of this supremacy to her military prowess and naval daring; her supremacy in these respects, however, would not have been enduring but for other qualities which have won for her the foremost place, and enabled her to retain it. Her maritime adventure and colonial enterprise in the reign of Queen Elizabeth, and also subsequently, so expanded her empire that both in area and population the British Empire exceeds that of any other nation on the face of the earth. The total area of the United Kingdom is only 121,115 square miles; the total population, at the date of the last census, being 37,888,153 souls. The estimated aggregate area of all the countries of the world is 52,569,431 square miles, the aggregate estimated population being 1,479,729,151 persons. The area of Europe alone is stated to be 3,797,410 square miles, its estimated population being 357,851,580 persons. In comparison with these figures, the area of the British Empire is stated to be 8,995,824 square miles, with an aggregate population of 343,431,000, or nearly equal to one-fourth of the entire population of the world. If the recent annexations in Africa were added the area would be 11,190,514 square miles, or one-fifth the total area of the world, and one-fourth of the population.

How comes it to pass that a small country like Great Britain, less than one-thirtieth part of the area of Europe, and only about one-tenth of the population of Europe, has not only advanced to the position of a first-class power among the nations, but has retained that position throughout the whole of the present century? Without detracting from the military and naval achievements of the British armies and the navy, we may safely aver that our proud

THE COURSE OF BRITISH TRADE.

position is due to the arts of peace rather than to war, and that our commerce and trade, our financial and material resources, and the energy and skill of our people, have won for us, and secured to us, the supremacy we enjoy, upon land and sea, in all parts of the world. The object of the present paper is to indicate the extent of British trade and its relative value, both with foreign countries and with British colonies and possessions, and to show, as far as practicable, in what directions it is extending, where it is diminishing, and where it is, to all appearance, stationary.

I.—THE AGGREGATE TRADE OF THE UNITED KINGDOM.

THE aggregate trade of the United Kingdom, under its two chief heads of imports and exports, and also the relative proportions of that trade with foreign countries and colonial possessions respectively, will be seen at a glance in the following tables:—

(a) *The Total Annual Averages of Imports and Exports, and the Annual Increase.*

YEARS.	Total Imports.	Total Exports.	Aggregate Trade.	Yearly Increase.
	£	£	£	£
1854.....	152,389,053	115,821,092	268,210,145	.....
1855-9....	169,539,526	139,512,342	309,051,868	40,841,723 +
1860-4....	235,520,813	179,968,801	415,489,614	106,437,746 +
1865-9....	286,339,904	229,666,659	516,006,562	100,516,948 +
1870-4....	346,067,334	290,179,878	636,247,202	120,240,640 +
1875-9....	375,055,316	257,000,433	632,055,749	4,191,453 -
1880-4....	407,636,362	298,312,522	705,948,884	73,893,135 +
1885-9....	379,666,466	287,166,708	666,839,841	39,109,043 -
1890.....	420,691,997	328,252,118	748,944,115	82,104,274 +
1891.....	435,441,264	309,113,718	744,554,982	4,389,133 -

In the preceding table, the aggregate trade of the United Kingdom, together with the totals of the imports and exports respectively, and the yearly increase or decrease in each quinquennial period, are given. In the two following tables the relative proportions of that aggregate trade are shown, both as to the annual value of the imports and exports respectively, and the percentages as regards foreign countries and British possessions, for the purposes of comparison:—

+ Increase.

- Decrease.

THE COURSE OF BRITISH TRADE.

(1)

(b) The Proportions of Foreign and Colonial Trade respectively.

YEARS.	Aggregate Imports. Yearly Averages.	FOREIGN COUNTRIES.		BRITISH POSSESSIONS.	
		Aggregate Imports. Yearly Averages.	Ratio per Cent of Total.	Aggregate Imports. Yearly Averages.	Ratio per Cent of Total.
	£	£		£	
1854.....	152,389,053	118,239,554	77·6	34,149,499	22·4
1855-9.....	169,539,526	129,363,197	76·3	40,176,329	23·7
1860-4.....	235,520,813	167,651,415	71·7	67,869,418	28·3
1865-9.....	286,339,904	217,301,683	76·0	68,638,221	24·0
1870-4.....	346,067,334	270,002,805	78·0	76,064,539	22·0
1875-9.....	375,055,316	292,017,457	77·9	83,037,859	22·1
1880-4.....	407,636,362	312,039,626	76·5	95,596,736	23·5
1885-9.....	379,666,466	292,813,216	77·1	86,853,250	22·9
1890.....	420,691,997	324,530,783	78·3	96,161,214	21·7
1891.....	435,441,264	335,976,546	...	99,464,718	...

(2)

YEARS.	Aggregate Exports. Yearly Averages.	Foreign Countries. Yearly Averages.	Ratio per Cent of Total.	British Possessions. Yearly Averages.	Ratio per Cent of Total.
	£	£		£	
1854.....	115,821,092	78,967,924	68·1	36,853,168	31·9
1855-9.....	139,512,342	99,741,697	71·6	39,770,862	28·4
1860-4.....	179,968,801	130,413,203	72·5	49,575,598	27·5
1865-9.....	229,666,659	176,129,454	76·7	53,537,205	23·3
1870-4.....	290,179,878	225,055,952	77·5	65,123,916	22·5
1875-9.....	257,000,433	184,788,687	71·9	72,211,746	28·1
1880-4.....	298,312,522	210,462,335	70·6	87,850,187	29·4
1885-9.....	287,116,708	200,666,109	70·0	86,500,599	30·0
1890.....	328,252,118	233,729,649	73·1	94,522,469	26·9
1891.....	309,068,866	215,775,599	...	93,338,119	...

The foregoing analysis of the comparative trade of the United Kingdom with foreign countries and with British possessions shows that, on the whole, the relative trade with the former increases in greater ratio than with the latter.

THE COURSE OF BRITISH TRADE.

II.—BRITISH TRADE WITH FOREIGN COUNTRIES.

WITH the view of presenting in clear outline the course of British trade with foreign countries, the subject is here treated under two main heads—(a) with industrial competitive countries; and (b) with non-competing countries. But competition in this connection only applies to manufactured goods, it does not include foods, drinks, or raw material. Under the second head geographical grouping has been resorted to as one of the best means of ascertaining the relative importance of different countries as markets for British goods, and as the sources of our supplies of agricultural, natural, and other produce of various kinds, and of the raw materials which are needed in manufacturing processes, and industrial production. The method of treatment here adopted, if not the best that could be devised, has at least this advantage, that it will give a bird's-eye view of British trade with the several countries of the world in a form easily to be grasped, and for comparative purposes simple and intelligible.

A.—INDUSTRIAL COMPETITIVE FOREIGN COUNTRIES.

1. THE UNITED STATES.—It is a matter for congratulation to find that the United States stand first in importance, as our largest customer, both for general exports and for the exports of British goods and manufactures; and, on the other hand, we import more largely from the United States than from any other country. (a) The aggregate trade between Great Britain and the United States during the last three years for which the revised figures are available, namely, 1889, 1890, and 1891, was as follows:—

YEARS.	Total Imports from the United States.	Total Exports to the United States.	Aggregate Trade with the United States.	Exports of British and Irish Goods, &c., to the United States.
	£	£	£	£
1889	95,461,475	43,878,934	139,340,409	30,293,942
1890	97,283,349	46,340,012	143,623,361	32,068,128
Totals	192,744,824	90,218,946	282,963,770	62,362,070
Averages ...	96,372,412	45,109,473	141,481,885	31,181,035
1891	104,409,050	41,066,147	145,475,197	27,544,553

The above figures show that the average yearly aggregate trade, in the first two years, amounted in value to £141,481,885; the yearly value of the total imports being £96,372,412, and of exports £45,109,473, of which the value of British goods exported to the

THE COURSE OF BRITISH TRADE.

United States amounted to £31,181,035 annually. In the year 1891 there was a large expansion of imports but a serious shrinkage of exports, mainly of British goods.

A more extended view of the commercial relations of the United States with Great Britain is furnished by the following table, covering a period of nearly forty years. The yearly averages over quinquennial periods are given, starting with the year 1854 as the basis of comparison, and ending with the last year for which authentic figures are available:—

(b) *The Yearly Averages of Trade between the United States and the United Kingdom.*

YEARS AND PERIODS.	Aggregate Imports from the United States into the United Kingdom	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom into the United States	Total Exports of Foreign and Colonial Produce into the United States.	Total Exports of British and Irish Goods into the United States.	Per Cent to Total British Trade.
	£		£	£	£	
1854....	29,795,302	19·7	22,333,403	923,034	21,410,369	21·6
1855-9.	32,797,662	19·4	20,193,594	1,140,157	19,053,397	16·4
1860-4.	31,865,526	13·6	18,597,524	3,175,057	15,422,467	10·9
1865-9.	39,001,906	13·7	26,344,767	2,732,944	23,521,823	12·9
1870-4.	62,194,397	18·0	36,968,734	3,945,501	33,023,233	14·1
1875-9.	80,855,900	21·6	21,645,088	3,653,953	17,990,535	9·0
1880-4.	96,831,841	23·7	36,583,384	7,899,000	28,684,384	12·2
1885-9.	85,270,515	22·5	38,806,538	11,295,038	27,511,500	12·2
1890....	97,283,349	...	46,340,012	14,271,884	32,068,128	...
1891....	104,409,050	...	41,066,147	13,521,594	27,544,553	...

(c) *The Area, Population, and Aggregate Trade of the United States.*

The total area of the United States is stated to be 2,836,725 square miles.

YEARS AND PERIODS.	The Total Population at Census Dates.	QUINQUENNIAL AVERAGES.		United States Shipping. Tonnage.
		Total Imports into the United States.	Total Exports by the United States.	
	1850	£	£	Tons.
1854.....	23,192,000	57,491,000	44,824,000	.....
1855-9.....	1860	59,179,000	52,827,000	1,585,711
1860-4.....	31,443,000	54,803,000	42,928,000	2,546,237
1865-9.....	1870	73,569,000	45,483,000	6,730,000
1870-4.....	38,558,000	112,971,000	96,165,000	1,516,800
1875-9.....	1880	94,161,000	124,733,000	1,553,827
1880-4.....	50,155,783	139,313,000	165,429,000	1,352,810
1885-9.....	1890	137,830,200	146,242,200	1,021,595
1890.....	62,622,250	161,828,000	176,102,000	946,695

THE COURSE OF BRITISH TRADE.

The supreme significance of the preceding figures lies in the fact that while our imports from the United States have outgrown the relative increase in the aggregate imports by the United States, our total exports to the United States have only doubled, while the total exports by the United States have nearly quadrupled. Or, taking our aggregate trade with the United States, our imports therefrom have increased threefold, while our exports thereto of British and Irish goods have only increased by about one-third.

One of the most important features in connection with the trade of the United Kingdom with any foreign country is the character of the imports from and the exports to that country. This is pre-eminently the case where anything like foreign competition takes place. Space forbids any elaborate comparison in detail, and consequently only a comprehensive summary of the nature of the chief articles can be given in groups, under general heads, indicative of their essential character and nature. The following analysis will show approximately what we receive from the United States in the shape of imports, and what we export thereto, both as regards British and Irish produce and goods, and also foreign and colonial produce:—

NATURE OF THE IMPORTS FROM THE UNITED STATES.	IMPORTS.	
	1889.	1890.
	£	£
Food of all kinds—Corn, Meat, Dairy Produce, Vegetables, &c.	41,881,463	46,586,620
Tobacco—manufactured and unmanufactured	2,990,383	2,530,510
Other Agricultural Produce, Seed Cake, Manures, &c.	1,726,974	2,068,543
Chemical and Oil Products of all sorts, Wax, &c.	4,284,271	4,508,112
Wood of all kinds—hewn, sawn, split, &c.	2,386,969	2,070,010
Cotton, Wool, Hemp, Hair, Skins, Hides, Caoutchouc, &c.	34,522,664	32,153,592
Ores of all kinds—Silver, Lead, Copper, &c.	1,759,342	1,254,242
Totals of Foods, Produce, Raw Materials, &c.	89,522,066	91,171,629
Manufactures: Leather—really raw material	2,209,665	2,019,359
„ Joiners' Work, partially completed	154,826	162,924
„ Caoutchouc, Gutta Percha, &c.	50,397	62,056
„ Iron and Steel, and Sewing Machines	501,172	497,126
„ Watches and Clocks, and parts thereof....	117,822	132,792
„ Books of all kinds	47,750	47,297
„ Cotton Goods of all kinds	266,173	229,053
Total of manufactured and partially manufactured goods.	3,347,805	3,150,607
Total of unenumerated articles	2,591,604	2,961,113
Aggregate totals of all imports in values	95,461,475	97,283,349

THE COURSE OF BRITISH TRADE.

It is obvious from the preceding figures that we are in no way injured by the imports from the United States, for the manufactured articles enumerated, exclusive of leather, which is a raw material needed for domestic manufacture, amount to only a trifle over one million sterling, out of from ninety-six to ninety-seven millions sterling annually, all the rest being raw material and products.

The total exports from the United Kingdom to the United States amounted to £46,840,012. Of this total £14,271,884 represented exports of foreign and colonial produce, some of which might even have been the articles imported from the United States. For example, of the total of £229,053 representing cotton goods imported, £29,377 were re-exported from the United Kingdom into the United States, either of their own exports or of similar manufactures imported from elsewhere. Again, of the total of raw cotton imported, an amount valued at £223,459 was re-exported to the United States. As, however, no figures are available by which to distinguish from whence the re-exported goods came for the purposes of this comparison, it will be sufficient to discriminate between the exports of foreign and colonial produce and goods, and the exports of British and Irish goods generally.

The following table shows the character of the exports under both heads for the year 1890, the latest year for which the figures were obtainable at the date of writing:—

NATURE OF THE EXPORTS TO THE UNITED STATES.	TOTAL EXPORTS.	
	Foreign and Colonial.	British and Irish.
	£	£
Animals and Foods—Meat, Fish, Vegetables, Drinks, and other Produce.....	1,533,157	759,124
Agricultural Produce other than the above, &c.....	184,375	24,609
Chemical Products of all kinds, Oils, Colours, &c.....	669,002	2,446,401
Cements, Clay, Stones, Slates, &c. ....	....	691,970
Joiners' Work of all kinds	23,883	48,201
Textile Goods, Apparel, Leather, Hides, Skins, Furs, Hair, &c.	7,985,522	18,638,305
Ores and Minerals, except coal products, &c.....	1,410,905	61,975
Iron and Steel Manufactures, Machinery, &c.	369,808	7,463,137
Books and Stationery, and Paper of all kinds .....	....	545,768
China, Earthenware, and Glass of all kinds	43,920	1,126,053
Works of Art—Pictures, Engravings, Drawings, &c.	6,220	35,995
Unenumerated and other articles—various.....	2,045,392	1,226,590
Total Exports from the United Kingdom to the United States	14,271,884	32,068,128

THE COURSE OF BRITISH TRADE.

Limited as our exports are compared with our imports from the United States, the former mainly represent manufactured articles of various kinds. But the misfortune is that we cannot reasonably expect any large increase in this direction; on the contrary, the probability is that the exports to the United States will decrease, or be stationary, inasmuch as manufacturing industry is being extensively developed in nearly all the branches of trade in which hitherto we have largely shared.

2. FRANCE.—Our commercial relations with France stand second only among the nations as regards the aggregate trade with the United Kingdom, but she is third on the list as regards the imports of British and Irish produce and manufactures into France. The total trade in the years 1889 and 1890 amounted to the aggregates and averages given below for the two years respectively, inclusive of imports and exports.

The figures for 1891 are given in table (b).

(a) Aggregate Trade with France.

YEARS.	Total Imports from France into the United Kingdom.	Total Exports to France from the United Kingdom.	The Aggregate Trade between France and the United Kingdom.	Total Exports of British and Irish Goods to France.
	£	£	£	£
1889.....	45,780,277	22,101,222	67,881,499	14,682,677
1890.....	44,828,148	24,710,803	69,538,951	16,567,927
Totals	90,608,425	46,812,025	137,420,450	31,250,604
Averages...	45,304,212	23,406,012	68,710,225	15,625,302

The above figures show that the average aggregate trade between the two countries for the two years, 1889 and 1890, amounted in value to £68,710,225, of which total imports from France averaged £45,304,212, and exports to France averaged £23,406,012. But the average exports of British and Irish produce and manufactures only reached £15,625,302.

The following figures show conclusively that we cannot expect any large expansion of trade between France and the United Kingdom. As a matter of fact, our imports from France are very nearly stationary, while our exports to France barely maintain their level during the last twenty years in either class.

THE COURSE OF BRITISH TRADE.

(b) *The Yearly Averages of Trade between France and the United Kingdom.*

YEARS AND PERIODS.	TOTAL EXPORTS TO FRANCE OF EACH CLASS AND THE AVERAGES.					
	Aggregate Imports from France into the United Kingdom.	Per Cent to Total British Trade.	Aggregate Exports to France.	Exports of Foreign and Colonial Produce.	Exports of British and Irish Goods, &c.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854....	10,447,774	6·6	6,391,465	3,216,175	3,175,290	3·1
1855-9.	12,328,219	7·2	10,204,988	4,549,558	5,655,230	4·8
1860-4.	21,388,730	9·2	19,802,856	11,759,735	8,043,121	5·8
1865-9.	33,960,079	11·9	24,353,265	13,358,403	10,994,862	6·1
1870-4.	39,823,450	11·6	28,649,843	12,493,826	16,156,018	6·8
1875-9.	43,537,254	11·6	27,022,124	11,924,179	15,097,945	7·5
1880-4.	39,623,581	9·7	28,716,765	11,856,844	16,859,921	7·2
1885-9.	38,813,400	10·2	22,065,057	7,690,249	14,374,808	6·3
1890....	44,828,148	...	24,710,803	8,142,876	16,567,927	...
1891....	44,777,460	...	24,336,676	7,907,011	16,429,665	...

(c) *Area, Population, and Aggregate Trade of France.*

The total area of France is officially stated to be 204,146 English square miles. “Whitaker” says 204,090, and the “Statesman’s Year Book,” 204,092.

YEARS AND PERIODS.	The Total Population at Census Dates.	QUINQUENNIAL AVERAGES.		Total Tonnage of French Shipping.
		Aggregate Imports into France.	Aggregate Exports by France.	
		£	£	Tons.
1854.....	.....	51,664,000	56,548,000	662,500
1855-9.....	36,139,000	69,281,400	75,764,000	688,153
1860-4.....	37,446,000	91,942,200	96,103,000	996,124
1865-9.....	38,067,064	119,348,800	119,677,600	.....
1870-4.....	36,102,921	136,535,600	135,396,800	1,072,048
1875-9.....	36,905,788	159,730,400	138,364,000	1,028,228
1880-4.....	37,672,048	190,929,600	138,305,400	919,196
1885-9.....	38,218,903	165,969,600	132,252,800	1,003,679
1890.....	38,343,150	176,930,000	148,805,000	944,013
1891.....	.....	.....	.....	.....

It will be observed that the imports into France have increased by a much larger ratio than the exports from France. The increase in imports in 1890 over 1854 amounted to £125,266,000, while the

THE COURSE OF BRITISH TRADE.

exports from France only increased by £92,257,000. The average of imports is also better maintained, both in actual quantities and values, and in proportion to the population.

The character of the total exports by France will be understood by the following summary:—The exports of foods and drinks amounted to the yearly average of £27,860,496 in the five years 1880 to 1884; in the next five years, 1884 to 1889, the yearly average was £25,747,440. Wine and spirits make up nearly one-half the total; then follows, in order of value, sugar, cheese and butter, grain, horses and other animals, fruit, and eggs. Raw materials come next, amounting to £31,878,324 in the five years 1880 to 1884, and to £28,502,000 in the five years 1885 to 1889, yearly. The articles comprised in this group include chemical products, hides, leather, woods, raw silk, raw cotton, wool, &c. The manufactures, comprising silks, cottons, woollen goods, apparel, haberdashery, jewellery, metal wares, glass and earthenware, &c., amounted on an average to £46,320,880 in the five years 1880 to 1884, and to £44,762,650 in the five years 1885 to 1889. There was an increase of about £1,224,000 in cotton goods, nearly £400,000 in apparel, and about £150,000 in woollen yarns; but there was a decline of over £1,000,000 in silks. Speaking generally, the manufacturing exports of France are non-progressive.

(d) *Nature, Character, and Extent of French Exports.*

Inasmuch as France is our nearest neighbour, and in most respects our keenest competitor in the industrial race, a comparison of the averages of the several articles of manufacture, of raw materials, foods, drinks, &c., exported during the two last decades will be useful as showing in what class of goods the exports increase. The following is a classified summary, according to their nature:—

FRANCE—AVERAGES OF HER TOTAL EXPORTS ANNUALLY OF ALL THE
CHIEF ARTICLES.

NATURE OF THE ARTICLES EXPORTED.	1880-84.	1885-89.
	£	£
Horses and all other animals.....	1,791,112	2,681,584
Grain and Flour of all kinds	2,538,504	944,408
Fruit of all sorts	1,447,496	1,591,144
Cheese and Butter and Margarine.....	4,154,368	3,810,464
Eggs of various sorts	1,192,760	1,070,840
Sugar—in the raw state	820,776	642,440
Sugar—refined	3,197,688	2,031,616
Wines and Spirits of all kinds	12,717,792	12,974,944
Totals of food products, drinks, &c.	27,860,496	25,747,440

THE COURSE OF BRITISH TRADE.

FRANCE—AVERAGES OF HER TOTAL EXPORTS ANNUALLY OF ALL THE CHIEF ARTICLES.—CONTINUED.

NATURE OF THE ARTICLES EXPORTED.	1880-84.	1885-89.
	£	£
Chemical products of all sorts	2,452,248	1,948,464
Hides—raw of all kinds	2,819,416	2,467,552
Hides—tanned, curried, or dressed	4,093,048	3,957,592
Leather Goods and Wares, all kinds	6,097,392	5,317,888
Paper of all sorts	2,099,776	1,770,688
Woods of all kinds, and products	1,208,488	1,201,976
Glass and Earthenwares, all kinds	1,575,848	1,539,896
Iron, Steel, and Metal Wares, all sorts	2,797,792	2,794,664
Jewellery and Ornaments of all kinds	2,740,240	2,135,728
Silk—raw and waste, all sorts	6,891,688	5,327,144
Silk manufactures of all kinds	10,456,320	9,263,044
Cotton—raw, all conditions	2,049,512	1,364,808
Cotton manufactures of all kinds	3,572,024	4,796,016
Wool—raw, combed, &c.....	4,166,576	5,145,888
Woollen Yarns of all kinds.....	1,553,880	1,694,560
Woollen manufactures, all kinds	14,697,736	13,951,328
Wearing Apparel of all sorts	3,069,216	3,430,148
Haberdashery and Smallwares	5,957,824	5,157,272
Totals of raw products and manufactures	78,291,624	73,264,656
Grand Total of all exports	106,152,120	99,012,096

In so far as exports are concerned there is no expansion whatever. On the contrary there is a decline in the totals of nearly seven millions sterling, of which two millions represent food and drink products, and five millions all kinds of raw material and manufactures. Of the latter there was an increase in cotton goods, woollen yarns, and wearing apparel, but a decrease in woollen goods.

3. GERMANY.—As regards the aggregate trade with the United Kingdom, Germany stands third on the list; but as regards exports she is second, both in respect of our total exports to that country and also the exports purely of British and Irish manufactures and produce. The aggregate trade of Germany, and the total trade between the United Kingdom and Germany, for the two years 1889 and 1890, and the averages for the two years respectively, inclusive of imports and exports, were as follows:—

THE COURSE OF BRITISH TRADE.

(a) Aggregate Trade with Germany.

YEARS.	Total Imports into the United Kingdom from Germany.	Total Exports from the United Kingdom into Germany.	Aggregate Trade between Germany and the United Kingdom.	Total Exports of British and Irish Goods to Germany.
	£	£	£	£
1889.....	27,104,832	31,283,624	58,388,456	18,478,136
1890.....	26,073,331	30,516,281	56,589,612	19,293,626
Totals	53,178,163	61,799,905	114,978,068	37,771,762
Averages ...	26,589,081	30,899,952	57,489,024	18,885,881

The above figures show that the average aggregate trade between the two countries for the two years 1889 and 1890 amounted in value to £57,489,024, of which the total imports into the United Kingdom from Germany amounted to £26,589,081, and the exports to Germany from the United Kingdom, to £30,899,952 yearly. The exports of British and Irish manufactures and produce averaged £18,885,881 in each year respectively.

(b) The Yearly Averages of Trade between Germany and the United Kingdom.

YEARS AND PERIODS.	Aggregate Imports into the United Kingdom from Germany.	Per Cent to Total British Trade.	TOTAL EXPORTS TO GERMANY, EACH CLASS AND THE AVERAGES.			
			Aggregate Exports to Germany.	Exports of Foreign and Colonial Merchandise.	Exports of British and Irish Goods.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854 ...	*	*	*	*	*	*
1855-9..	10,967,702	7.0	16,904,299	4,360,415	12,540,547	10.3
1860-4..	14,843,171	6.2	21,237,353	7,552,423	13,684,930	9.4
1865-9..	18,226,892	6.4	29,501,625	9,537,189	19,964,436	11.1
1870-4..	18,754,611	5.4	36,309,340	10,001,385	26,307,925	11.1
1875-9..	22,879,462	6.1	30,320,016	10,107,815	20,212,202	10.0
1880-4..	25,020,999	6.2	30,085,581	12,203,567	18,082,012	7.7
1885-9..	24,576,844	6.5	27,874,428	11,391,819	16,446,609	7.2
1890 ...	26,073,331	...	30,516,281	11,222,655	19,293,626	...
1891 ...	27,031,743	...	29,994,361	11,140,032	18,804,329	...

* There are no figures for accurate comparison earlier than 1860; those given are approximate.

THE COURSE OF BRITISH TRADE.

The foregoing figures indicate very clearly that no very great expansion of trade is possible between the United Kingdom and Germany, particularly as regards our exports to that country. Even the higher figures for 1890 barely reached those of 1874 to 1879, while in British and Irish exports there is an absolute decline.

(c) Area, Population, and Aggregate Trade of Germany.

The total area of Germany is officially stated to be 208,670 English square miles. "Whitaker" gives the area as 211,168 square miles, and the "Statesman's Year Book" as 211,135 square miles. The population, the aggregate trade, and the tonnage of her shipping were as follows—the first column gives the population at census dates, whilst the columns two and three give the quinquennial averages in each case:—

PERIODS AND YEARS.	Total Population at Census Dates.	QUINQUENNIAL AVERAGES.		Total Tonnage of Shipping.
		Aggregate Imports into Germany.	Aggregate Exports by Germany.	
		£	£	Tons.
1870-4.....	41,059,000	177,048,000	116,258,000	982,355
1875-9.....	42,727,372	183,946,000	134,679,000	1,084,882
1880-4.....	45,234,000	154,377,000	151,400,000	1,181,525
1885-9.....	46,855,704	162,632,000	153,538,000	1,282,449
1890.....	49,421,064	208,105,000	166,405,000	1,433,413
1891.....	.....	.....	.....	.....

The growth of the German shipping trade, that is the tonnage entered and cleared, is great in the twenty years given, but the expansion of foreign shipping is nearly as great, the increase being from 6,406,000 tons in the period 1873 and 1874, to 10,305,000 tons in the five years 1885 to 1889. The difference in favour of Germany is in fact only about 2 per cent on the total tonnage in twenty years. The output of coal has nearly doubled in the same period, the increase being from 32,278,000 tons in 1870 to 1874, to 61,888,000 tons in the five years 1885 to 1889, and to 70,390,046 tons in 1890. The production of pig iron has increased from 1,818,000 tons in 1870 to 1874 to 3,894,000 tons in 1885 to 1889; in 1890 the production was 4,563,029 tons, and in 1891 it fell to 4,452,019 tons. The aggregate imports have decreased rather than increased. This is due to the fact that food productions of home growth have increased, as well as manufacturing productions in the raw state and finished, during the period of peace since the Franco-German

THE COURSE OF BRITISH TRADE.

ar. The aggregate exports of Germany have increased largely in twenty years, but not more largely than the total exports of the United Kingdom, and not in a greater ratio than the exports to Germany from the United Kingdom. So far as the total trade is concerned, there is nothing to be alarmed at in the comparative growth of trade by the two countries, or the relative proportions of that trade between the two countries. What is apparent is that we cannot look for any large expansion of that trade in the future, because Germany is manufacturing and producing for her own consumption.

4. HOLLAND.—The kingdom of Holland, or, more properly speaking, the Netherlands, occupies the fourth place of honour as regards her total trade with the United Kingdom. Her aggregate exports to the United Kingdom are slightly below those of Russia, but her imports from the United Kingdom are nearly double those of Russia. The Netherlands also occupy the fourth place as regards the importation of British and Irish manufactures and produce. The total trade in the two years 1889 and 1890 between the two countries was as follows:—

(a) *The Aggregate Trade between Holland and the United Kingdom.*

YEARS.	Total Imports into the United Kingdom from Holland.	Total Exports to Holland from the United Kingdom.	Aggregate Trade between Holland and the United Kingdom.	Total Exports of British and Irish Produce.
	£	£	£	£
1889.....	26,679,216	16,204,279	42,883,495	9,724,757
1890.....	25,900,924	16,445,992	42,346,916	10,121,160
Totals	52,580,140	32,650,271	85,230,411	19,845,917
Averages ...	26,290,070	16,325,135	42,615,205	9,922,958

The foregoing figures show that the average aggregate trade between the Netherlands and the United Kingdom for the two years 1889 and 1890 amounted in values to £42,615,205 a year, of which total the imports from Holland into the United Kingdom averaged £26,290,070, and the exports to Holland £16,325,135. Of the total exports to Holland, £9,922,958, or in round figures nearly ten millions sterling a year, were for British and Irish goods.

THE COURSE OF BRITISH TRADE.

(b) *The Yearly Averages of Trade between the two Countries have been as follows :—*

YEARS AND PERIODS.	Aggregate Imports from Holland into the United Kingdom.	Per Cent to Total British Trade.	TOTAL EXPORTS TO HOLLAND, EACH CLASS AND AVERAGES.			
			Total Exports to Holland.	Exports of Foreign and Colonial Produce.	Exports of British and Irish Goods.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	6,731,141	4·6	6,893,911	2,320,877	4,573,034	5·2
1855-9..	6,815,203	3·9	8,113,799	2,389,871	5,503,927	4·6
1860-4..	8,821,383	3·8	11,620,115	5,258,984	6,361,131	4·3
1865-9..	11,826,955	4·1	15,773,965	6,230,940	9,543,025	5·3
1870-4..	13,826,164	3·9	21,921,432	7,379,496	14,541,936	6·0
1875-9..	18,945,006	5·1	16,996,618	6,363,316	10,633,302	5·1
1880-4..	25,049,110	6·1	16,256,253	6,802,228	9,454,025	4·0
1885-9..	26,679,379	6·8	15,416,088	6,706,712	8,727,376	3·9
1890.....	25,900,924	...	16,445,992	6,324,832	10,121,160	...
1891.....	27,301,657	...	14,988,930	5,525,630	9,463,300	...

(c) *Area, Population, and Aggregate Trade of Holland.*

The total area of Holland is 12,515 English square miles; in "Whitaker" it is given as 12,680 square miles; the "Statesman's Year Book" as 12,648 square miles. Its area is small even in comparison with the United Kingdom, as part of the European group of states. Historically, Holland was our earliest competitor in commerce and trade. The population, the aggregate value of trade and the tonnage of shipping were as under, at the dates given:—

PERIODS AND YEARS.	Population at Census Dates.	QUINQUENNIAL AVERAGES.		Total Tonnage of Shipping.
		Aggregate Imports into Holland.	Aggregate Exports by Holland.	
		£	£	Tons.
1880-4.....	4,012,693	82,541,000	59,963,600	328,281
1885-9.....	4,450,870	97,476,000	84,012,800	247,088
1890.....	4,511,415	107,620,000	90,096,000	255,711
1891.....	.....	.....	.....	.....

As regards shipping, Holland has not fulfilled the promise of earlier years. There was a period in history when she competed for the supremacy of the seas, but that time has gone. Of the total tonnage of her shipping more than one-half consists of sailing vessels and less than one-half of steam tonnage. Holland imports large quantities of food products, and also of raw material of various kinds; the three

THE COURSE OF BRITISH TRADE.

largest items are bread-stuffs, rice, drugs, and some materials for manufacturing purposes. Her exports show at once the energy of her people, and their industrial habits. Her exports of drugs are nearly equal in value to her imports of the same article, and she exports largely agricultural and dairy produce. More significant still is her exports of cotton manufactures, £1,119,260; silk manufactures, £2,505,115; woollen goods, £2,174,980; hides and leather, £1,526,080. The exports of British and Irish goods and manufactures to Holland have presumably reached their limit, for during the last 25 years we have not increased our exports, barely indeed have held our own. It is absolutely certain that we cannot find an extended market there, and at the same time there cannot be any very keen competition by Holland by reason of her limited area and population.

5. BELGIUM.—The kingdom of Belgium, situate as it were in the centre of Europe, and maintained as an independent kingdom by virtue of treaties, is only a small tract of country of some 11,370 English square miles. Its total population at the last census, December 31st, 1890, was only 6,069,321, yet it stands fifth on the list as one of England's best customers in commerce and trade. Belgium is in fact sometimes regarded as a dangerous rival in some industrial enterprises, but on a broad view of the case this contention is absurd. The aggregate trade between Belgium and the United Kingdom recently has been as follows:—

(a) *The Aggregate Trade between Belgium and the United Kingdom.*

YEARS.	Total Imports into the United Kingdom from Belgium.	Total Exports from the United Kingdom into Belgium.	Aggregate Trade between Belgium and the United Kingdom.	Total Exports of British and Irish Produce.
	£	£	£	£
1889.....	17,674,877	13,678,861	31,353,738	7,229,418
1890.....	17,383,776	13,594,966	30,988,742	7,638,712
Totals	35,058,653	27,273,827	62,342,480	14,868,130
Averages ...	17,514,326	13,636,913	31,171,240	7,434,065
1891.....	17,253,265	13,272,472	30,525,737	7,374,495

Whether we regard the imports and exports separately, or the aggregate of both combined, or the total exports of British and foreign goods and produce to Belgium, the results are most satisfactory, as between the United Kingdom and the small kingdom of Belgium, in the central position in Europe. The average aggregate of trade remains at from 30 to 31 millions sterling. Extending the comparison over a longer period gives the following result:—

THE COURSE OF BRITISH TRADE.

(b) *The Yearly Average Value of Trade between the two Countries has been as follows :—*

YEARS AND PERIODS.	Aggregate Imports from Belgium into the United Kingdom.	Per Cent to Total British Trade.	TOTAL EXPORTS TO BELGIUM, EACH CLASS AND AVERAGES.			
			Aggregate Exports to Belgium from the United Kingdom.	Exports of Foreign and Colonial Produce, &c.	Exports of British and Irish Goods and Produce.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	3,631,161	2·6	3,355,672	1,948,740	1,406,932	1·0
1855-9..	3,091,224	1·9	3,982,409	2,298,529	1,683,880	1·7
1860-4..	4,871,686	2·0	4,893,732	2,939,085	1,953,428	1·5
1865-9..	8,092,672	2·8	7,673,754	4,520,230	3,153,524	1·7
1870-4..	13,231,247	3·8	12,349,734	6,304,496	6,045,235	2·5
1875-9..	12,934,334	3·5	12,326,658	6,807,931	5,518,727	2·8
1880-4..	13,804,249	3·4	14,235,524	6,679,501	7,556,023	3·2
1885-9..	15,472,208	4·1	13,204,523	5,825,962	7,338,561	3·2
1890.....	17,383,776	...	13,594,966	5,956,254	7,638,712	...
1891.....	17,253,265	...	13,272,472	5,897,977	7,374,495	...

The regularity of the growth of trade for the first twenty years was remarkable, but during the last twenty years the value of such trade is nearly stationary.

(c) *Area, Population, and Aggregate Trade of Belgium.*

The total area of Belgium is, as before stated, 11,370 English square miles. "Whitaker" and the "Statesman's Year Book" give it as 11,373 miles. The difference in this case is insignificant. In area it is less than Holland by 1,145 English square miles, while its population is greater by 1,257,906. The density of population in Belgium is 533·8 to the square mile, in Holland only 360·5. In energy and industry they resemble each other, although in different ways and degrees, and varying industries. The population, aggregate value of trade, and tonnage of shipping were as under at the dates and periods given:—

PERIODS AND YEARS.	Population at Census Dates.	QUINQUENNIAL AVERAGES.		Total Tonnage of Shipping.
		Aggregate Imports into Belgium.	Aggregate Exports by Belgium.	
		£	£	Tons.
1880-4.....	5,336,185	63,169,600	5,220,760	75,666
1885-9.....	5,520,009	57,638,200	50,598,600	84,862
1890.....	6,069,321	66,885,000	57,481,000	75,946
1891.....	.....	.....	.....	.....

THE COURSE OF BRITISH TRADE.

The aggregate trade of Belgium shows very little capacity for any al expansion, nor can it be expected, considering its area and population. In the five years 1885 to 1889, the imports into and the exports from that country fell very considerably; in 1891 there was a revival, but the imports never reached the high water mark of 1880, and the exports in 1890 were less than in 1889. Nevertheless, the total trade is large for a population not much larger than Ireland. The imports into Belgium exceed the exports by Belgium to the extent of £9,132,830 on the average annually. Animals, meat, grain, and other food products are largely imported, and so are coals, iron and steel in their raw state and manufactures, raw cotton and wool and manufactures thereof, silk, raw and manufactured, and other raw products for manufacturing purposes. The exports by Belgium comprise articles of food, £1,435,868; woollen manufactures, £1,816,227; silk and manufactures, £1,915,741; cotton manufactures, £607,071; glass, £956,336; iron manufactures, £328,144; linen, £660,479; metals and ores, £495,995; hides and leather, £484,982; gloves and leather manufactures, £448,799; clocks and watches, £253,112. These articles of export betoken industrial activity of a varied kind, and indicate a capacity for keen competition if the country were large enough, which might be formidable in the present condition of trade and commerce.

6. RUSSIA.—The Russian Empire occupies a high place commercially as a customer of the United Kingdom, the aggregate trade between the two countries in the year 1891 being £32,303,383; but, although its area is vast and its population enormous, it is not, under existing conditions, a competing country, industrially speaking. It is, however, included in the recent return as one of the countries whose trade has expanded, and therefore its position in that respect has to be considered. The aggregate trade between the two countries recently has been as follows:—

a) The Aggregate Trade between Russia and the United Kingdom.

YEARS, TOTALS, AND AVERAGES.	Total Imports into the United Kingdom from Russia.	Total Exports from the United Kingdom to Russia.	Aggregate Trade between Russia and the United Kingdom.	Total Exports of British and Irish Produce.
	£	£	£	£
1889.....	27,154,490	8,643,263	35,197,753	5,332,258
1890.....	23,750,868	8,846,054	32,596,922	5,751,601
Totals.....	50,905,358	17,489,317	67,794,675	11,083,859
Averages ...	25,452,679	8,744,658	33,897,337	5,541,929
1891.....	24,110,251	8,193,132	32,303,383	5,407,402

THE COURSE OF BRITISH TRADE.

The stationary condition of trade is pretty clearly indicated by the figures above given. The exports by Russia scarcely maintain the average, while the imports by Russia betoken her poverty and lack of resource. The exports of British and Irish goods and produce show little or no expansion, nor is there any reason to hope for any large extension so long as Russia maintains its position as a great military state, bent upon aggression rather than upon peaceful industrial development. The average aggregate trade of Russia was less by ten millions sterling in 1890 than it was in 1879, though that year was a year of depression all round. The imports decreased but the exports increased, the latter being mainly food products and raw material.

(b) *The Yearly Average Value of Trade between Russia and the United Kingdom has been as follows:—*

YEARS AND PERIODS.	Aggregate Imports from Russia into the United Kingdom.	Per Cent to Total British Trade.	TOTAL EXPORTS TO RUSSIA, EACH CLASS AND THE AVERAGES.			
			Aggregate Exports to Russia from the United Kingdom.	Exports of Foreign and Colonial Produce.	Exports of British and Irish Goods.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	4,252,288	2·6	74,039	19,738	54,301	...
1855-9..	10,194,181	6·0	4,192,987	1,625,184	2,367,803	2·1
1860-4..	14,251,428	6·0	5,265,450	2,479,241	2,786,209	2·2
1865-9..	19,204,315	6·7	7,441,458	3,309,592	4,151,866	2·2
1870-4..	22,145,111	6·4	10,576,466	2,984,641	7,591,824	3·4
1875-9..	18,821,250	5·0	9,254,754	2,733,328	6,125,023	3·3
1880-4..	17,684,446	4·3	8,820,192	2,836,316	5,983,878	2·5
1885-9..	20,147,605	5·3	7,189,446	2,584,413	4,585,033	2·0
1890.....	23,750,868	...	8,846,052	3,094,453	5,751,601	...
1891.....	24,110,251	...	8,193,132	2,785,730	5,407,402	...

(c) *Area, Population, and Aggregate Trade of Russia.*

The total area of European Russia, including Poland and Finland is officially given as 2,080,396 English square miles. Russia proper is stated to be 1,887,043, Poland 49,149, and Finland 144,211 square miles. Russia in Asia is stated to cover 6,369,685 English square miles, so that the total Russian Empire covers 8,450,081 English square miles. The density of its population is only 44·1 to the square mile in Europe, and only 2·6 in Asia, or only 12·9 for the entire Russian Empire.

THE COURSE OF BRITISH TRADE.

The population of Russia in Europe, the aggregate value of trade, and the tonnage of her shipping averaged as under in the periods given:—

PERIODS AND YEARS.	Population at the Census Dates.	QUINQUENNIAL AVERAGES.		Total Tonnage of Shipping.
		Aggregate Imports into Russia.	Aggregate Exports by Russia.	
		£	£	Tons.
1880-4.....	73,504,592	56,129,600	57,061,600	740,192
1885-9.....	91,861,910	41,592,800	64,198,800	*
1890.....	98,000,000	40,665,000	70,394,000	*
1891.....	.....	.....	.....	.....

Looking through the list of articles exported by Russia we find an almost total absence of manufactures of any kind. The chief articles exported are corn, flour, and meal of all sorts; animals, butter, sugar, and tallow; wool, flax, hemp, and bristles; furs, leather, wood, and metals (all unwrought), seeds, and a few other articles. Hempen yarn is exported to a small extent. The United Kingdom is an excellent customer for Russian produce of all kinds, food products, and of raw materials for manufacturing purposes, the chief being food and timber, £3,086,704; corn of all kinds, £3,764,764; flax, £1,720,852; seeds of all sorts, £1,151,866; wool, £380,435; oil cake, £79,546; hides and leather, £109,676; petroleum, pitch, and tar, £33,843; hemp, £281,604; and hair, £159,015. The imports into Russia from the United Kingdom consist mainly of coals, £810,962; machinery of all kinds, £1,029,904; metals and metallic wares, £806,955; wool and woollen goods, £273,180; cotton goods, £604,397; implements and tools, £85,309; yarn, alpaca, &c., £79,175; and chemical products of all kinds, £131,062. There is nothing in either to betoken industrial activity. With her vast area and large population, Russia might become an enormous power in Europe, but there are no signs of any such change in her policy, or in the direction of her affairs. She is beaten by Belgium and Holland as a factor in commerce and trade, and also in the status and comfort of her people.

7. SWEDEN AND NORWAY.—The trade returns of Sweden and Norway are given separately in Government publications, but, as the two countries have long been (since 1814) united under one sovereign, they are here dealt with as a whole, as Scandinavia, as that part of Europe is often denominated.

* Figures for a later date not given.

THE COURSE OF BRITISH TRADE.

The annual aggregate value of the trade of Sweden and Norway with the United Kingdom has been as follows in the years mentioned:—

(a) *The Aggregate Value of Trade between Sweden and Norway and the United Kingdom.*

YEARS AND AVERAGES.	Total Imports into the United Kingdom from Sweden and Norway	Total Exports from the United Kingdom to Sweden and Norway.	Aggregate Trade between the two Kingdoms.	Total Exports of British and Irish Produce.
	£	£	£	£
1889.....	12,704,560	6,402,154	19,106,714	4,502,487
1890.....	11,906,345	7,002,269	18,908,614	4,977,784
Totals	24,610,905	13,404,423	38,015,328	9,480,271
Averages ...	12,305,452	6,702,211	19,007,664	4,740,135
1891.....	11,873,280	6,586,438	18,459,718	4,890,346

The preceding figures rather indicate a state of stagnation than of progressive development, in so far as the total value of trade between the kingdom of Scandinavia and of the United Kingdom is concerned. A more extended review of the commercial relations does not quite give the same impression, though the growth of trade is extremely slow.

(b) *The Yearly Average Value of Trade between the two Kingdoms has been as follows:—*

YEARS AND PERIODS.	Aggregate Imports from Sweden and Norway into the United Kingdom.	Per Cent to Total British Trade.	TOTAL EXPORTS FROM THE UNITED KINGDOM TO SWEDEN AND NORWAY.			
			Aggregate Exports from the United Kingdom to Sweden and Norway.	Exports of Foreign and Colonial Merchandise.	Total Exports of British and Irish Goods and Produce.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	3,878,979	2·5	1,092,844	356,036	736,808	0·9
1855-9..	3,141,561	2·0	1,345,134	361,485	983,649	0·9
1860-4..	4,110,584	1·8	1,998,860	617,138	1,181,721	1·0
1865-9..	6,062,805	2·8	2,455,926	913,607	1,542,319	0·7
1870-4..	9,465,933	2·7	5,108,268	1,505,825	3,602,443	1·3
1875-9..	9,509,509	2·4	5,414,143	1,768,380	3,645,763	1·7
1880-4..	11,033,023	2·6	5,198,469	1,616,205	3,582,305	1·6
1885-9..	11,045,494	3·1	5,229,854	1,553,868	3,656,006	1·4
1890.....	11,906,345	...	7,002,269	2,024,485	4,977,784	...
1891.....	11,873,280	...	6,586,438	1,696,092	4,890,346	...

THE COURSE OF BRITISH TRADE.

The preceding figures show gradual development up to the year 1884. Since that date there has been no great expansion in any one class, though the exports of British and Irish goods have shown a further increase of over one million sterling a year. There are no signs of further expansion.

(c) *Area, Population, and Aggregate Trade of Sweden and Norway.*

The total area of the kingdom of Sweden and Norway is 295,156 English square miles, of which Sweden covers 170,661, and Norway 124,495 square miles. It has an extensive sea coast, and is admirably adapted for the mercantile development of its internal resources and of its foreign trade. The total population at the last census was 6,783,841, of which Sweden contributed 4,168,525, or 23.0 to the square mile, and Norway 1,818,853, or 16.1 to the square mile. A very large proportion of the population is engaged in agricultural pursuits, but it has also a considerable percentage engaged in various other industrial occupations. The population, aggregate trade, and total tonnage of shipping are as under, the former being given at the census dates:—

PERIODS AND YEARS.	Population at Census Dates.	QUINQUENNIAL AVERAGES.		Total Tonnage of Shipping.
		Aggregate Imports into Sweden and Norway	Aggregate Exports by Sweden and Norway.	
		£	£	Tons.
1880-4.....	5,987,378	25,312,800	19,711,400	2,061,300
1885-9.....	6,783,861	26,193,800	20,500,200	2,116,077
1890.....	6,467,400	32,115,000	23,822,000	2,216,647
1891.....	.....	.....	.....	.....

The aggregate expansion of trade is but slow, either in imports or exports, but it is, generally speaking, gradual. For example, the total imports in 1889 were £30,956,000, the growth to £32,115,000 in 1890 being at the rate of about two millions sterling. The exports do not increase in the same ratio, being only about three-quarters of a million a year. The imports into Sweden and Norway are very varied in character; they include a large quantity of corn and grain, sugar, wines and spirits, meat, butter, coffee, oil, coal, machinery, iron and steel manufactures, cotton (raw), yarns and manufactures, wool, silk manufactures, wearing apparel, skins (dressed and undressed), paper, &c. The exports consist of animals, corn and grain, wood, paper, glass, matches, iron and steel manufactures, a little machinery, and cotton manufactures. The forests supply a

THE COURSE OF BRITISH TRADE.

plentiful store of wood, much of which is exported either in baulk deals and planks, beams and rafters, masts and spars, staves, pit props, or in some more advanced manufactured state. As a competitor, Sweden and Norway compete in matches and in some building materials, and also in some iron and steel manufactures, cotton manufactures, paper, and glass; but we send largely in return our goods and products.

8. SPAIN.—As the preceding countries have exhausted the list of those which are really competitive, fewer details will suffice for those that follow; but the same series of facts will be continued, as far as space will permit and as the figures are available, though in a slightly altered form, in so far as the order and arrangement are concerned. The comparative figures will, however, be maintained.

The total area of Spain is 194,744 English square miles. "Whitaker" gives the area as 194,173, and the "Statesman's Year Book" as 197,670 square miles. The population, total trade, and tonnage of shipping were as follows at the periods given:—

(a) *The Population and Aggregate Trade of the Kingdom of Spain.*

PERIODS AND YEARS.	Population at Census Dates.	QUINQUENNIAL AVERAGES.		Total Tonnage of Shipping.
		Aggregate Imports into Spain.	Aggregate Exports by Spain.	
		£	£	Tons.
1880-4.....	16,431,869	30,819,000	27,198,800	560,133
1885-9.....	17,545,160	32,106,200	30,459,800	613,050
1890 .....	.....	35,913,000	37,297,000	614,921

(b) *Aggregate Value of Trade between Spain and the United Kingdom.*

YEARS AND AVERAGES.	Total Imports from Spain into the United Kingdom.	Total Exports to Spain by the United Kingdom.	Aggregate Trade between Spain and the United Kingdom.	Total Exports of British and Irish Goods.
	£	£	£	£
1889.....	11,558,857	4,925,712	16,484,569	4,327,990
1890.....	12,508,533	5,702,804	18,211,337	4,999,705
Totals	24,067,390	10,628,516	34,695,906	9,327,695
Averages...	12,033,695	5,314,258	17,347,953	4,663,847
1891.....	10,523,875	5,527,061	16,050,936	4,977,473

THE COURSE OF BRITISH TRADE.

(c) Yearly Average Value of Trade between Spain and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Spain.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO SPAIN FROM THE UNITED KINGDOM, EACH CLASS.			
			Total Exports from the United Kingdom to Spain.	Exports to Spain of Foreign and Colonial Merchandise.	Total Exports of British and Irish Goods to Spain.	Per Cent to Total British Trade.
	£	%	£	£	£	%
854.....	3,594,501	2·0	1,436,106	165,647	1,270,464	1·0
855-9..	3,534,764	2·0	2,088,746	304,244	1,864,502	1·4
860-4..	4,588,114	1·7	3,622,906	653,597	2,969,311	2·2
865-9..	5,869,698	2·0	2,934,505	750,056	2,184,449	1·1
870-4..	8,551,630	2·0	4,146,147	778,433	3,412,379	1·4
875-9..	9,156,073	2·2	4,182,331	740,183	3,422,147	1·5
880-4..	10,799,451	2·3	4,589,414	949,451	3,639,983	1·4
885-9..	10,257,567	2·8	4,178,128	702,539	3,475,589	1·4
890.....	12,508,533	...	5,702,804	703,099	4,999,705	...
891.....	10,523,875	...	5,527,061	549,588	4,977,473	...

The development of trade between Spain and the United Kingdom is very slow, but it bears a fair proportion to the total growth of Spanish commerce, in spite of the fact that France is a near neighbour, and that Portugal and Italy are within easy distance for the purposes of transit of goods.

9. ITALY.—The total area of Italy is 110,623 English square miles. “Whitaker” gives it as 110,655, and the “Statesman’s Year Book” as 114,410 English square miles. The total population and aggregate trade of Italy were as follows at the periods given:—

(a) The Population, Aggregate Trade, and Shipping of Italy.

PERIODS AND YEARS.	Population at Census Dates.	QUINQUENNIAL AVERAGES.		Total Tonnage of Shipping.
		Aggregate Imports into Italy.	Aggregate Exports by Italy.	
		£	£	Tons.
1880-4.....	28,459,628	51,016,800	46,214,200	999,196
1885-9.....	30,947,306	59,666,600	42,343,200	824,474
1890.....	.....	52,786,000	38,271,000	820,716

THE COURSE OF BRITISH TRADE.

(b) Aggregate Value of Trade between Italy and the United Kingdom.

YEARS AND AVERAGES.	Total Imports into the United Kingdom from Italy.	Total Exports to Italy from the United Kingdom.	Aggregate Trade between Italy and the United Kingdom.	Total Exports of British and Irish Goods.
	£	£	£	£
1889.....	3,230,131	8,063,854	11,294,485	7,156,587
1890.....	3,093,918	8,523,209	11,617,127	7,757,862
Totals	6,324,049	16,587,063	22,911,612	14,914,449
Averages ...	3,162,024	8,293,531	11,455,806	7,457,224
1891.....	3,419,281	6,853,048	10,272,329	6,296,560

(c) Yearly Average Value of Trade between Italy and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Italy.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO ITALY FROM THE UNITED KINGDOM, EACH CLASS.			
			Total Exports to Italy from the United Kingdom.	Exports to Italy of Foreign and Colonial Produce, &c.	Total Exports of British and Irish Goods to Italy.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	2,370,319	1·3	2,691,666	418,403	2,273,263	2·1
1855-9..	2,457,430	1·3	4,110,994	646,664	3,443,469	3·1
1860-4..	2,847,242	1·3	6,627,651	1,126,551	5,510,102	4·1
1865-9..	3,589,754	1·2	6,474,233	1,000,663	5,473,571	3·0
1870-4..	4,018,499	1·2	7,602,130	1,214,499	6,387,631	2·6
1875-9..	3,874,337	1·0	7,226,524	1,222,079	6,004,445	3·0
1880-4..	3,340,341	0·7	7,515,087	1,183,070	6,532,017	2·7
1885-9..	3,100,856	0·8	7,548,605	849,930	6,698,675	3·0
1890.....	3,093,918	...	8,523,209	765,347	7,757,862	...
1891.....	3,419,281	...	6,853,048	556,488	6,296,560	...

Though Italy makes very little progress in her exports to the United Kingdom, her imports from the United Kingdom maintain a good ratio, all things considered. The exports of British and Irish goods and merchandise have been nearly on a level for the past twenty-two years, with, however, an increase of over a million sterling in 1890. Last year they fell back to the old level of about six-and-a-quarter millions sterling.

10. DENMARK.—The total area of Denmark is only 14,791 English square miles. "Whitaker" gives it as 14,789, and the "Statesman's Year Book" as 14,124 square miles. The total population, aggregate trade, and the tonnage of shipping at the dates mentioned were given as follows:—

THE COURSE OF BRITISH TRADE.

(a) Population, Aggregate Trade, and Shipping of Denmark.

PERIODS AND YEARS.	Population at the Census Dates.	QUINQUENNIAL AVERAGES.		Total Tonnage of Shipping.
		Aggregate Imports into Denmark.	Aggregate Exports by Denmark.	
		£	£	Tons.
880-4.....	1,784,741	14,315,200	10,515,400	249,466
885-9.....	1,980,259	14,335,800	10,108,200	289,217
890.....	2,172,205	14,906,000	10,839,000	302,194

b) Aggregate Value of Trade between Denmark and the United Kingdom.

YEARS AND AVERAGES.	Total Imports into the United Kingdom from Denmark.	Total Exports to Denmark from the United Kingdom.	Aggregate Trade between Denmark and the United Kingdom.	Total Exports of British and Irish Goods, &c.
	£	£	£	£
889.....	7,845,817	2,817,954	10,663,771	2,368,284
890.....	7,753,389	2,928,006	10,618,395	2,539,467
Totals.....	15,599,206	5,745,960	21,282,166	4,907,751
Averages..	7,799,603	2,872,980	10,641,083	2,453,875
891.....	7,936,787	3,032,612	10,969,399	2,617,220

c) Yearly Average of Trade between Denmark and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Denmark.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO DENMARK, EACH CLASS.			
			Total Exports to Denmark from the United Kingdom.	Exports of Foreign and Colonial Produce, &c.	Total Exports of British and Irish Goods, &c.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	2,706,186	1·4	989,728	230,010	759,718	0·8
1855-9..	2,501,062	1·3	1,026,386	226,262	800,124	0·7
1860-4..	1,688,912	0·5	1,062,996	190,668	872,327	0·6
1865-9..	2,374,493	0·5	1,638,681	283,776	1,354,904	0·9
1870-4..	3,337,391	0·9	2,536,416	332,856	2,203,560	1·0
1875-9..	4,333,894	1·2	2,314,933	409,471	1,905,062	1·1
1880-4..	5,330,095	1·3	2,493,269	384,760	2,108,510	1·0
1885-9..	5,974,308	1·5	2,369,819	382,605	1,987,214	0·5
1890.....	7,753,389	...	2,928,006	388,539	2,539,467	...
1891.....	7,936,787	...	3,032,612	415,392	2,617,220	...

THE COURSE OF BRITISH TRADE.

The imports from Denmark into the United Kingdom have slowly and gradually increased, but our exports to Denmark remain nearly stationary during the same period. But the area of Denmark is very small, and the population inconsiderable, nor is there any large increase in the latter to such an extent as to influence trade. As a competitor, Denmark is not in the race; as a customer, she is fairly good.

11. PORTUGAL.—The total area of Portugal, exclusive of the Azores, is 34,499 English square miles. “Whitaker” makes it 34,606, and the “Statesman’s Year Book” only 34,038 square miles, including the Azores.

The total population, aggregate trade, and shipping are as under, at the dates given:—

(a) *Population, Aggregate Trade, and Shipping of Portugal.*

PERIODS AND YEARS.	Population at Census Dates.	QUINQUENNIAL AVERAGES.		Total Tonnage of Shipping.
		Aggregate Imports into Portugal.	Aggregate Exports by Portugal.	
		£	£	Tons.
1880–4.....	4,348,551	7,752,600	5,176,600	Inconsiderable Tonnage, about 110,000
1885–9..	4,708,178	8,456,800	5,256,400	
1890.....	.....	9,969,000	4,841,000	

(b) *Aggregate Value of Trade between Portugal and the United Kingdom.*

YEARS AND AVERAGES.	Total Imports into the United Kingdom from Portugal.	Total Exports to Portugal from the United Kingdom.	Aggregate Trade between the United Kingdom and Portugal.	Total Exports of British and Irish Goods, &c.
	£	£	£	£
1889.....	3,105,076	2,996,618	6,101,694	2,511,240
1890.....	2,942,194	2,612,638	5,554,832	2,157,784
Totals.....	6,047,270	5,609,256	11,656,526	4,669,024
Averages ...	3,023,635	2,804,628	5,828,263	2,334,512
1891.....	2,952,965	2,349,254	5,302,219	2,018,597

THE COURSE OF BRITISH TRADE.

(c) *Yearly Average Value of Trade between Portugal and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Portugal.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO PORTUGAL, EACH CLASS.			
			Total Exports to Portugal by the United Kingdom.	Total Exports of Foreign and Colonial Produce, &c.	Total Exports of British and Irish Goods, &c.	Per Cent to Total British Trade.
	£	%	£	£	£	%
854.....	2,101,126	1·3	1,519,600	148,997	1,370,603	1·1
855-9..	1,773,074	1·0	1,709,088	308,446	1,400,642	0·9
860-4..	2,083,952	0·8	2,283,838	376,470	1,907,367	1·2
865-9..	2,446,304	0·7	2,170,921	354,225	1,816,696	1·0
870-4..	3,915,516	1·0	2,719,299	392,514	2,326,785	1·1
875-9..	3,585,427	0·9	2,744,623	532,074	2,212,549	1·1
880-4..	3,460,317	0·8	2,526,606	437,266	2,017,340	1·0
885-9..	2,647,569	0·7	2,484,403	393,394	2,111,050	1·0
890.....	2,942,194	...	2,612,638	454,854	2,157,784	...
891.....	2,952,965	...	2,349,254	330,657	2,018,597	...

Neither in her total external trade nor in her trade with the United Kingdom does Portugal show signs of great development, and the recent financial difficulties of the kingdom will cripple her still further. In order to make up her revenue she has imposed additional duties, but those duties will only hamper her own trade, and render it more and more difficult for her to develop her own resources. Her tariffs are simply starving her trade and her people.

12. AUSTRO-HUNGARY.—The area of Austria is 115,809, and of Hungary 124,409 English square miles—total of the empire, 240,218 English square miles. “Whitaker” makes it 261,649, and the “Statesman’s Year Book” 240,942 English square miles. They also differ as to the population. The total population, aggregate trade, and shipping tonnage are as under at the dates given:—

(a) *Population, Aggregate Trade, and Shipping of Austro-Hungary.*

PERIODS AND YEARS.	Population at Census Dates.	ANNUAL AVERAGES.		Total Tonnage of Shipping.
		Aggregate Imports into Austro-Hungary.	Aggregate Exports by Austro-Hungary.	
		£	£	Tons.
1880-4.....	37,883,505	52,450,000	60,513,000	290,971
1885-9.....	.....	46,466,200	58,976,800	210,983
1890.....	41,345,118	50,894,000	64,281,000	204,214

THE COURSE OF BRITISH TRADE.

(b) Aggregate Value of Trade between Austro-Hungary and the United Kingdom.

YEARS AND AVERAGES.	Total Imports into the United Kingdom from Austro-Hungary.	Total Exports by the United Kingdom to Austro-Hungary.	Aggregate Trade between the Two Countries.	Total Exports to Austro- Hungary of British and Irish Goods, &c.
	£	£	£	£
1889.....	2,286,834	1,411,006	3,697,840	1,038,758
1890.....	1,728,337	1,694,318	3,422,655	1,283,209
Totals.....	4,015,171	3,105,324	7,120,495	2,321,967
Averages...	2,007,585	1,552,662	3,560,247	1,160,983
1891.....	1,464,106	1,607,191	3,071,297	1,227,967

(c) Annual Average Value of Trade between Austro-Hungary and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Austro- Hungary.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO AUSTRO-HUNGARY BY THE UNITED KINGDOM.			
			Total Exports to Austro- Hungary from the United Kingdom.	Exports of Foreign and Colonial Produce, &c.	Total Exports of British and Irish Manufactures, &c.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	846,202	0·6	864,493	228,562	635,931	0·5
1855-9..	841,686	0·5	1,291,096	313,797	977,300	0·8
1860-4..	664,603	0·3	1,305,827	471,145	834,683	0·6
1865-9..	1,511,426	0·5	1,175,750	171,766	1,003,784	0·8
1870-4..	1,002,735	0·3	1,871,295	406,688	1,464,607	0·4
1875-9..	1,413,425	0·4	1,164,493	307,408	857,085	0·2
1880-4..	1,803,321	0·4	1,158,699	378,322	780,371	0·2
1885-9..	1,957,150	0·5	1,306,396	392,709	913,687	0·2
1890.....	1,728,337	...	1,694,318	411,109	1,283,209	...
1891.....	1,464,106	...	1,607,191	357,224	1,227,967	...

The aggregate trade between Austro-Hungary and the United Kingdom is so inconsiderable that it falls below almost every other European State, however small her general trade. Even her general trade is inexpansive, except that in the one year, 1890, her exports exceeded the average of 1880 to 1884 by about seven-and-three-quarter millions sterling. The aggregate trade with the United Kingdom is less than with Switzerland; but a large percentage of her trade is overland, rather than by sea transit.

THE COURSE OF BRITISH TRADE.

13. SWITZERLAND.—The area of the Federal Republic of Switzerland is 15,442 English square miles, its population about 3,000,000. Her total imports amounted in value to £40,066,000, and her exports to £29,003,000, in the year 1890. The growth of imports has been nearly two millions sterling per annum in the last five years, and her exports to about three-quarters of a million. Her exports to the United Kingdom amount to about £4,267,360, and her imports from the United Kingdom to about £2,094,960. Her exports consist largely of manufactured articles, such as cotton goods, ribbons, lace, iron and steel manufactures, silk manufactures, woollen manufactures, watches and clocks, wearing apparel, hides, skins, milk, cheese, meat, &c. Considering its size and population, it is one of the most actively industrious of all the countries in Europe. Her imports largely consist of manufactured goods of the kinds mentioned, and of food products.

The thirteen countries dealt with in the preceding list constitute all the chief competing countries of the world, in so far as the industrial race is concerned, between the United Kingdom and all other countries. A synoptical view of the whole situation, taking the annual average trade for the period of five years, 1885 to 1889, will be useful for the purposes of comparison, thus:—

NAME OF COUNTRY.	1885-9. AGGREGATE TRADE OF COUNTRY.		1885-9. AGGREGATE TRADE WITH THE UNITED KINGDOM.		Total Tonnage of Shipping, 1890.
	Total Imports.	Total Exports.	Imports into the United Kingdom.	Exports to by the United Kingdom.	
	£	£	£	£	Tonnage.
United States.....	137,830,200	146,242,200	85,270,515	38,806,538	946,695
France	165,969,600	132,252,800	38,813,400	22,065,057	944,013
Germany	162,632,000	153,538,000	24,576,844	27,874,428	1,433,413
Holland	97,476,000	84,012,800	26,679,379	15,416,088	255,711
Belgium	57,638,200	50,598,600	15,472,208	13,204,523	75,946
Russia	40,665,000	70,394,000	20,147,605	7,189,446	500,000
Sweden and Norway	26,193,800	20,500,200	11,045,494	5,229,854	2,216,646
Spain	32,106,200	30,459,800	10,257,567	4,178,128	614,921
Italy	59,666,600	42,343,200	3,100,856	7,548,605	820,716
Denmark.....	14,335,800	10,108,200	5,974,308	2,369,819	302,194
Portugal	8,456,800	5,256,400	2,647,569	2,484,403	160,000
Austria.....	46,466,200	58,976,800	1,957,150	1,694,318	204,214
Switzerland.....	37,000,000	25,000,000	2,000,000	4,000,000	....
Totals	886,436,400	829,683,000	247,942,895	152,061,207	7,527,774
United Kingdom ..	379,666,466	287,116,708	247,942,895	152,061,207	7,945,071

In the last two years, 1890 and 1891, British trade expanded beyond the figures given.

THE COURSE OF BRITISH TRADE.

B.—NON-COMPETITIVE FOREIGN COUNTRIES.

(a) *Area, Population, and Total Trade.*

14. TURKEY.—The area of the Turkish Empire is large, exclusive of Egypt it covers 1,252,533 English square miles, and has a population estimated at 26,542,522 persons. The aggregate trade of the Turkish Empire is not very certain, but for the seven years for which the figures are given the total imports amount to about 18½ millions sterling a year, and the exports to about eleven millions a year. With the single exception of carpets, the exports consist mainly of food products and fruit, raw materials such as silk, cotton, mohair, skins, minerals, oil, seeds, chemicals, &c. The imports consist largely of cotton goods, silk goods, woollen goods, and other textile fabrics; sugar, corn and bread-stuffs, animals, leather, iron, chemicals, coal, and other miscellaneous articles.

(b) *Annual Average Value of Trade between Turkey and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Turkey.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO TURKEY FROM THE UNITED KINGDOM.			
			Total Exports to Turkey from the United Kingdom.	Exports of Foreign and Colonial Produce, &c.	Total Exports of British and Irish Goods, &c.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854	2,219,298	2·0	3,074,881	317,476	2,758,605	3·1
1855-9 ...	2,544,662	1·9	4,954,748	301,895	4,651,053	4·3
1860-4 ...	4,540,663	2·3	5,695,314	277,310	5,418,025	3·9
1865-9 ...	5,831,978	2·4	7,468,239	260,543	7,207,696	4·2
1870-4 ...	6,205,544	2·0	7,541,670	434,602	7,099,070	3·4
1875-9 ...	5,820,942	1·8	6,947,898	496,121	6,478,777	3·5
1880-4 ...	4,760,413	2·0	7,236,170	587,975	6,630,196	3·2
1885-9 ...	4,415,958	2·0	6,377,368	592,090	5,785,278	3·0
1890	4,816,883	...	7,340,868	568,807	6,772,061	...
1891	5,442,881	...	7,098,474	544,596	6,553,878	...

Although Turkey shows no signs of active development as an empire, she does a steady trade with the United Kingdom, far more extensive indeed than could have been expected considering her policy. As a customer for our goods she almost equals her old antagonist Russia, though she exports far less of her produce. For over thirty years, however, there has been no increase in her trade nor are there any indications of a possible enlargement of her

THE COURSE OF BRITISH TRADE.

ommerce. Financial difficulties, internal corruption, and cruel exactions all contribute to keep her population poor, even to the verge of almost starvation.

(a) *Area, Population, and Aggregate Trade.*

15. EGYPT.—The area of Egypt proper is 12,826 English square miles. The yearly average value of the aggregate trade of Egypt during the last ten years amounted to, in 1880 to 1884—imports, £7,910,800; in 1885 to 1889, £8,277,800; in 1890, £8,418,000. Exports—1880 to 1884, £12,818,600; in 1885 to 1889, £11,417,200; and in 1890 to £12,371,000. Curiously enough the total average of exports was not maintained in the last six years, while the average of imports only increased by about £300,000. The population of Egypt at the last census was 6,806,381, or 530·6 per square mile. Her exports are grain, beans, sugar, cotton, wool, hides, and leathers. Her imports are cottons, woollens, silks, boots and shoes, iron and steel manufactures, woodwork, oils, coals, and various food and fruit products.

(b) *Annual Average Value of Trade between Egypt and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Egypt.	Per Cent to Total British Trade.	AGGREGATE AVERAGE EXPORTS TO EGYPT FROM THE UNITED KINGDOM.			
			Total Exports to Egypt by the United Kingdom.	Exports of Foreign and Colonial Produce, &c., into Egypt.	British and Irish Exports to Egypt, Manufactures, &c.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	3,355,928	2·0	1,367,248	113,895	1,253,353	1·0
1855-9..	6,376,116	3·9	1,930,082	107,566	1,863,500	1·5
1860-4..	13,413,947	5·6	3,650,947	126,439	3,524,689	2·3
1865-9..	17,404,243	6·1	7,286,941	130,070	7,156,871	4·0
1870-4..	14,326,137	4·1	6,651,802	94,686	6,557,116	2·8
1875-9..	11,702,764	2·5	2,504,587	67,132	2,397,455	1·2
1880-4..	9,202,943	2·2	3,144,121	156,052	2,988,069	1·3
1885-9..	7,924,083	2·1	3,167,825	121,349	3,046,472	1·4
1890.....	8,368,851	...	3,549,991	78,161	3,381,830	...
1891.....	10,658,288	...	3,875,664	86,426	3,789,238	...

The foregoing figures show that we have passed the high watermark in so far as British trade with Egypt is concerned. Since the years 1870 to 1874 there has been a struggle to maintain the average of the next five years, 1875 to 1879, and even last year the imports into the United Kingdom had not attained that average by over one million sterling. There has been a very slight increase in our exports to Egypt, but the average yearly value is only a trifle over

THE COURSE OF BRITISH TRADE.

one-half the total of 1870 to 1874, and not equal to one-half of the five preceding years. Even our famous occupation of that country does not yet appear to have increased our trade with Egypt, though its finances seem to have improved very considerably.

(a) *Area, Population, and Aggregate Trade of China.*

16. CHINA.—The area of China is stated to be 3,924,837 English square miles. “Whitaker” makes it 4,468,750 square miles—that is, China proper 1,534,953, and the dependencies 2,933,797 square miles. The “Statesman’s Year Book” gives the total as 4,179,559. The population of China is not really known, but the “Statesman’s Year Book” gives it as 404,180,000, and “Whitaker” as 303,241,969. Whichever estimate is approximately correct the total population is vast, and its density in certain parts of the empire is greater than in any other part of the world. The average annual aggregate trade of China during the last eleven years has been as follows:—Imports—1880 to 1884, £22,307,200 ; in 1885 to 1889, £25,100,400 and in 1890, £32,965,000. Exports—1880 to 1884, £19,997,200 1885 to 1889, £20,421,800 ; and in 1890, £22,603,000. The whole of her external trade, including bullion and specie, does not amount to more than a million sterling a year increase of exports, all told. The chief articles of export are silk and silk manufactures cotton, wool, hides, straw, tea, sugar, tobacco, china, and paper. Her imports are cottons, woollens, coal, iron and steel manufactures opium, rice, sugar, oil, matches, &c.

(b) *Annual Average Value of Trade between China and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from China.	Per Cent to Total British Trade.	AGGREGATE AVERAGE VALUE OF EXPORTS TO CHINA BY THE UNITED KINGDOM.			
			Total Exports to China from the United Kingdom.	Foreign and Colonial Exports to China.	Total Exports of British and Irish Manufactures, &c.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	9,125,040	5·9	548,823	16,184	552,639	1·0
1855-9...	9,140,939	5·3	1,688,513	28,550	1,657,983	1·7
1860-4..	11,185,625	4·8	2,782,134	78,106	2,704,035	2·0
1865-9...	10,432,148	3·6	5,482,802	113,772	5,369,031	3·0
1870-4...	11,743,893	3·3	5,979,994	174,757	5,805,237	2·6
1875-9...	13,329,410	3·6	4,703,490	236,996	4,466,494	2·3
1880-4...	10,548,511	2·6	5,114,869	310,835	4,804,034	2·1
1885-9...	7,179,063	1·9	5,948,713	244,346	5,584,366	2·5
1890.....	4,830,850	...	6,763,221	154,239	6,608,982	...
1891.....	4,713,508	...	6,525,662	69,069	6,456,593	...

THE COURSE OF BRITISH TRADE.

The imports from China into the United Kingdom have fallen off nearly one-half since 1854, and by two-thirds since 1875 to 1879, but there has been a slow—very slow—increase of exports to China. One of the trade has gone from us through India, caused by the preference in exchange, while we now depend less upon China for teas, and more upon Ceylon. The indications are that our trade with China cannot be largely expanded under existing conditions.

(a) *Area, Population, and Aggregate Trade of Japan.*

17. JAPAN.—The area of Japan is 147,655 English square miles. "Whitaker" gives it as 147,697, and the "Statesman's Year Book" in the official returns. The population in 1890 was 40,453,461, 274 persons per square mile. The increase is at the rate of about one-fifth of a million per year, or 5,000,000 per decade. The principal cities are very populous, Tokyo having a population of nearly 1,000,000. The aggregate annual value of the trade of Japan has been as follows:—Imports—1880 to 1884, £6,167,800; in 1885 to 1889, £7,986,000; and in 1890, £13,271,000. Exports—1880 to 1884, £6,182,800; in 1885 to 1889, £8,512,600; and in 1890, £10,066,000. The chief exports of Japan are silk, copper ore and copper, tea, coal, camphor, earthenwares, fish, and rice. Her chief imports are cotton and cotton goods, woollen goods, other textile goods, coal, iron and steel manufactures, oil, sugar, and sundries. The importation of cotton manufactures decrease.

(b) *Annual Average Values of Trade between Japan and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Japan.	Per Cent to Total British Trade.	AGGREGATE AVERAGE VALUE OF BRITISH EXPORTS TO JAPAN.			
			Total Exports to Japan from the United Kingdom.	Foreign and Colonial Produce Exported to Japan.	Total British and Irish Exports to Japan.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	.....	...	.....	.....	.....	...
1855-9..	*	*	*	*	*	*
1860-4..	801,107	0·31	163,306	13,319	155,881	...
1865-9..	301,964	0·17	1,544,556	120,250	1,424,325	0·8
1870-4..	304,853	0·06	1,783,701	160,075	1,623,625	0·9
1875-9..	569,817	0·11	2,629,798	239,881	2,389,937	1·2
1880-4..	650,734	0·12	2,915,817	362,476	2,553,340	1·0
1885-9..	712,105	0·15	3,296,999	167,696	3,129,303	1·4
1890.....	1,024,993	...	4,187,373	105,580	4,081,793	...
1891.....	1,152,585	...	3,060,893	177,929	2,882,964	...

* No figures are available prior to 1860, some till only 1862.

THE COURSE OF BRITISH TRADE.

The opening up of Japan has not yet developed the trade which was expected. Her imports increase but slowly—they do not even keep pace with her exports, and these scarcely show a tendency to largely increase. Great things were expected of Japan, and in the matter of government and political institutions, she is taking the lead in that part of the Eastern world. But remembering her resources and her capacity for development, the doubling of her trade with this country in twenty-five years is not an encouraging sign, especially as there was a drop of one-third in our exports to Japan in 1891 as compared with 1890.

18. ROUMANIA.—(a) The total area of Roumania is 50,160 English square miles. Its population is 5,173,452. The total value of the imports in 1890 was £14,512,000, and of the exports £11,038,000. It includes Wallachia and Moldavia formerly belonging to Turkey but created into an independent State by the Treaty of Berlin, July 13th, 1878, to which was added the territory of Dobruja. Roumania is now a kingdom under treaty obligations.

(b) *Annual Average Value of Trade between Roumania and the United Kingdom.*

PERIODS AND YE RS.	Aggregate Imports into the United Kingdom from Roumania.	Per Cent to Total British Trade.	AGGREGATE VALUE OF EXPORTS TO ROUMANIA FROM THE UNITED KINGDOM.			
			Total Exports from the United Kingdom to Roumania.	Exports of Foreign and Colonial Produce.	Exports of British and Irish Goods and Produce.	Per Cent of Total British Trade.
	£	%	£	£	£	%
1854.....	446,913	0·30	16,615	213	16,402	·
1855-9..	707,908	0·39	157,122	21,759	135,357	·
1860-4..	1,005,081	0·40	199,598	35,324	164,274	·
1865-9..	808,250	0·17	518,382	51,998	466,384	0·
1870-4..	995,460	0·21	980,390	99,281	880,949	0·
1875-9..	884,625	0·12	857,080	88,250	768,830	0·
1880-4..	3,169,185	0·70	1,215,334	75,518	1,139,820	0·
1885-9..	3,116,426	0·90	1,063,512	61,641	1,001,871	0·
1890.....	4,447,159	...	1,350,497	80,226	1,270,271	·
1891.....	5,038,091	...	1,739,714	62,748	1,676,964	·

Since 1878, under free institutions, there has been a fair growth of trade, both as regards the exports by, and imports into, Roumania.

THE COURSE OF BRITISH TRADE.

19. GREECE.—(a) The area of Greece is 24,970 English square miles. The total population is 2,187,208. The total imports amounted in 1889 to £4,421,774, and the exports to £3,592,360. The imports consist mainly of cotton and other manufactures, and the exports of fruits, oil, hides, wine, honey, wax, and silk.

(b) *Annual Average Value of Trade between Greece and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Greece.	Per Cent to Total British Trade.	AGGREGATE VALUE OF TRADE BETWEEN GREECE AND THE UNITED KINGDOM.			
			Total Exports from the United Kingdom to Greece.	Exports of Foreign and Colonial Produce.	Total Exports of British and Irish Goods, &c.	Per Cent to Total British Trade.
	£	%	£	£	£	%
54.....	95,607	...	94,373	14,243	80,130	...
55-9..	819,602	0·42	266,676	27,317	239,688	0·16
60-4..	831,162	0·30	439,714	46,898	392,816	0·26
65-9..	1,174,315	0·33	1,048,022	93,861	954,162	0·58
70-4..	1,716,379	0·33	1,047,946	118,697	929,249	0·48
75-9..	1,927,988	0·44	1,069,181	149,516	919,665	0·46
80-4..	1,883,307	0·41	1,221,273	138,543	1,102,530	0·43
85-9..	1,819,949	0·52	1,020,851	90,855	929,997	0·47
90.....	1,962,798	...	1,235,126	77,554	1,157,572	...
91.....	2,166,486	...	1,218,546	93,975	1,124,571	...

There seems to be very little capacity for any large extension of trade with Greece, though her exports show a tendency to increase.

CENTRAL AND SOUTH AMERICAN GROUP OF STATES.

(a) *Area, Population, and Aggregate Trade.*

20. THE ARGENTINE REPUBLIC.—The total area of the Argentine Republic is officially given as 1,117,184 English square miles. "Whitaker" gives it as 1,095,013, and the "Statesman's Year Book" as 1,125,086 square miles. The total population in 1890 was 3,500,000, but the "Statesman's Year Book" gives a population of 4,086,492, or 3·6 per square mile; official records make it 3·1 per square mile. The aggregate trade of the Argentine Republic is as follows:—Imports—1880 to 1884, £13,479,000; in 1885 to 1889, £23,918,400; and in 1890, £28,448,000. Exports—1880 to 1884,

THE COURSE OF BRITISH TRADE.

£12,198,000; in 1885 to 1889, £18,422,400; in 1890, £20,164,000. The principal exports are animals, meat, corn, linseed, wool, hide and skins, &c. The chief imports are machinery, iron and steel manufactures, and metallic wares, cotton, woollen, linen, and other textile goods. France is a large purchaser of the productions of the Argentine Republic.

(b) *The Annual Average Value of Trade between the Argentine Republic and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from the Argentine Republic.	Per Cent to Total British Trade.	AGGREGATE AVERAGE VALUE OF EXPORTS TO THE ARGENTINE REPUBLIC.			
			Total Exports to the Argentine Republic.	Exports of Foreign and Colonial Produce to the Argentine Republic.	Exports of British and Irish Goods and Manufactures.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	1,285,186	0·7	1,299,690	32,565	1,267,125	1·2
1855-9..	1,293,111	0·7	1,035,442	36,438	999,055	0·8
1860-4..	1,225,868	0·5	1,444,725	23,014	1,421,721	0·9
1865-9..	1,152,582	0·3	2,399,233	53,658	2,365,575	1·1
1870-4..	1,850,656	0·4	3,200,805	85,016	3,115,850	1·2
1875-9..	1,330,298	0·3	2,160,695	80,190	2,080,505	0·7
1880-4..	962,160	0·1	4,242,052	107,471	4,134,580	1·6
1885-9..	2,075,371	0·2	7,037,129	153,001	6,884,128	3·1
1890.....	4,129,802	...	8,530,427	114,315	8,416,112	...
1891.....	3,451,228	...	4,366,028	119,328	4,246,700	...

The imports into the United Kingdom from the Argentine Republic have not kept pace with our exports to that country, and especially of goods of British and Irish manufacture. Up to 1890 the increase of our exports to that country was tolerably satisfactory, but last year there was a decline of four-and-a-quarter millions, or nearly one-half the total as compared with 1890. The finances are

THE COURSE OF BRITISH TRADE.

n a bad state, and it is not unlikely that a further decline in trade will take place unless the political and financial difficulties can be surmounted.

21. BRAZIL.—(a) The total area of Brazil is 3,219,000 English square miles, or officially 3,218,166 square miles. The “Statesman’s Year Book” gives it as 3,209,878 square miles. The total population is 14,002,335 persons. The imports amount in value to £20,738,248, and the exports to £23,246,520.

(b) *Annual Average Value of Trade between Brazil and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom. from Brazil.	Per Cent to Total British Trade.	AGGREGATE VALUE OF BRITISH EXPORTS TO BRAZIL.			
			Total Exports to Brazil by the United Kingdom.	Exports of Foreign and Colonial Produce, &c., to Brazil.	Exports of British and Irish Goods and Manufactures.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	2,083,589	1·3	3,011,822	119,982	2,891,840	3·1
1855-9..	2,621,892	1·5	4,294,253	172,351	4,121,902	3·5
1860-4..	4,165,394	1·7	4,714,902	125,253	4,589,469	3·6
1865-9..	6,941,067	2·4	6,312,572	134,371	6,178,221	3·3
1870-4..	7,334,846	2·1	7,157,063	280,307	6,876,756	3·0
1875-9..	5,668,451	1·5	6,399,992	397,631	6,002,182	3·0
1880-4..	5,874,638	1·4	6,991,927	325,177	6,666,750	3·0
1885-9..	4,640,589	1·2	6,273,785	327,526	5,946,280	2·6
1890.....	4,350,675	...	7,795,073	336,445	7,458,628	...
1891.....	4,249,909	...	8,605,293	315,254	8,290,039	...

For nearly twenty-seven years our exports to Brazil have remained almost stationary, but an improvement is observable in 1890 and 1891, the increase being at the rate of about one million sterling a year.

THE COURSE OF BRITISH TRADE.

22. CHILI.—(a) The area of Chili is 290,471 English square miles. The population is 2,527,320. The total imports into Chili in 1889 were £13,560,000. The total exports by Chili were £13,742,000 in 1889. These are the last returns. “Whitaker” gives the area as 256,850 square miles, and the population 2,665,926, and about 50,000 Indians and other tribes. Two-thirds of the total trade is with the United Kingdom; Germany, the United States, and France come next in succession in order of value.

(b) *Annual Average Value of Trade between Chili and the United Kingdom.*

PERIODS AND YEARS	Aggregate Imports into the United Kingdom from Chili.	Per Cent to Total British Trade.	AGGREGATE VALUE OF BRITISH EXPORTS TO CHILI.			
			Total Exports to Chili from the United Kingdom.	Total Exports of Foreign and Colonial Produce.	Total Exports of British and Irish Manufactures.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	1,380,563	0·7	1,465,444	43,589	1,421,855	1·0
1855-9..	1,885,720	1·2	1,416,719	48,780	1,367,939	0·9
1860-4..	2,663,530	1·1	1,458,846	31,449	1,427,037	0·7
1865-9..	3,832,134	1·3	2,031,114	44,731	1,986,383	1·1
1870-4..	4,536,615	1·4	2,897,490	147,808	2,749,681	1·2
1875-9..	3,399,803	0·9	1,672,412	113,254	1,559,158	0·8
1880-4..	3,129,784	0·7	2,481,111	163,087	2,318,024	1·0
1885-9..	2,667,198	0·7	2,217,657	190,933	2,026,728	0·9
1890.....	3,473,348	...	3,365,824	235,752	3,130,072	...
1891.....	3,710,356	...	2,205,969	205,419	2,000,550	...

There is practically no expansion of Chilean trade with the United Kingdom, though the total trade of Chili has nearly doubled since the year 1879.

THE COURSE OF BRITISH TRADE.

23. MEXICO.—(a) The total area of Mexico is 751,664 English square miles. The total population is 11,632,924. “Whitaker” gives the area as 751,177 square miles, and the population as 10,447,974. The “Statesman’s Year Book” gives the area as 40,970 square miles, and the population as 11,632,924. The total imports into Mexico in 1889 were £8,339,000; the exports from Mexico in 1890 were £13,021,000. The United States monopolise one-half the imports and two-thirds of the export trade.

(b) *Annual Average Value of Trade between Mexico and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Mexico.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO MEXICO FROM THE UNITED KINGDOM.			
			Total Exports to Mexico from the United Kingdom.	Exports of Foreign and Colonial Produce from the United Kingdom.	Total Exports of British and Irish Manufactures.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	220,605	0·1	463,884	32,948	430,936	0·4
1855-9..	298,689	0·2	650,824	40,664	610,160	0·4
1860-4..	1,376,386	0·6	1,197,998	139,516	1,058,482	0·7
1865-9..	909,361	0·4	1,152,505	58,832	1,094,674	0·6
1870-4..	437,371	0·1	1,175,688	147,325	1,028,364	0·5
1875-9..	654,547	0·2	850,891	81,073	769,818	0·3
1880-4..	645,586	0·1	1,525,891	72,992	1,452,898	0·5
1885-9..	542,264	0·1	1,209,278	94,467	1,114,809	0·4
1890.....	542,979	...	2,012,562	106,245	1,906,317	...
1891.....	493,453	...	1,956,647	260,873	1,695,774	...

Under existing conditions expansion of trade with Mexico seems impossible, except possibly with the United States.

THE COURSE OF BRITISH TRADE.

24. PERU.—(a) The total area of Peru is 454,708 English square miles. The population is 2,972,000. The total trade is £2,423,300—imports, £1,067,000; total exports, £1,356,350. Its annual expenditure is equal to the total value of its exports, while the poverty of its people prevents their expansion to any large extent.

(b) *Annual Average Value of Trade between Peru and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Peru.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO PERU FROM THE UNITED KINGDOM.			
			Total Exports to Peru from the United Kingdom.	Total Exports of Foreign and Colonial Produce.	Total Exports of British and Irish Manufactures.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	3,138,527	2·0	971,525	22,236	949,289	1·0
1855-9..	3,482,567	2·0	1,139,040	34,289	1,104,752	0·9
1860-4..	2,873,069	1·3	1,189,896	27,106	1,151,970	0·7
1865-9..	3,623,605	1·2	1,339,663	44,086	1,295,577	0·6
1870-4..	4,577,110	1·3	2,428,663	246,850	2,181,813	1·0
1875-9..	4,766,440	1·3	1,381,694	187,804	1,193,891	0·5
1880-4..	2,371,977	0·6	925,572	141,129	784,443	0·4
1885-9..	1,688,938	0·4	1,005,315	126,865	878,471	0·4
1890.....	1,053,604	...	1,234,846	111,451	1,123,395	...
1891.....	969,814	...	1,125,206	87,751	1,037,455	...

Rich as Peru is in mineral wealth, and capable as she is of internal development, she not only makes no progress but she declines in prosperity.

THE COURSE OF BRITISH TRADE.

25. CENTRAL AMERICA.—(a) Central America comprises five independent republics:—Guatemala, Salvador, Honduras, Nicaragua, and Costa Rica. The total area is about 175,867 English square miles, and the population about 3,053,000 persons. The total imports reach about £3,276,150, and the exports about £3,034,870. Aggregate trade about £6,311,020 yearly. Woods, hides, coffee, sugar, indigo, fruits, minerals, &c., are exported, while the imports consist of manufactures of various kinds, British and Irish chiefly.

(b) *Annual Aggregate Value of Trade between Central America and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Central America.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO CENTRAL AMERICA FROM THE UNITED KINGDOM.			
			Total Exports to Central America from the United Kingdom.	Exports of Foreign and Colonial Produce, &c.	Exports of British and Irish Goods, &c., to Central America	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	141,279	...	185,116	9,550	175,616	...
1855-9..	248,256	0·1	303,102	8,106	294,998	0·1
1860-4..	388,884	0·1	184,845	8,136	176,698	...
1865-9..	822,615	0·2	193,558	13,377	180,181	...
1870-4..	1,145,376	0·3	318,596	32,484	286,113	0·1
1875-9..	1,195,680	0·3	820,142	36,686	789,456	0·3
1880-4..	1,300,840	0·3	840,982	25,666	815,316	0·3
1885-9..	1,168,457	0·2	890,039	37,980	852,049	0·3
1890.....	1,320,305	...	1,037,489	50,321	987,168	...
1891.....	1,400,130	...	1,205,489	60,541	1,144,948	...

The actual growth of trade is but small, though the ratio of growth is good, and especially as regards the imports of British goods, since 1874.

THE COURSE OF BRITISH TRADE.

26. URUGUAY.—(a) The total area of Uruguay, or Monte Video, is 72,151 English square miles. The population is 706,275. The total imports are £6,743,000, and the exports £6,060,000. The imports are food and drinks, textile goods and clothing, iron and steel goods, &c. The exports are animals and animal products, and agricultural produce, &c.

(b) *Annual Average Value of Trade between Uruguay and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Uruguay.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO URUGUAY FROM THE UNITED KINGDOM.			
			Total Exports to Uruguay by the United Kingdom.	Exports of Foreign and Colonial Produce, &c.	Exports of British and Irish Produce and Manufactures.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	386,996	0·2	471,240	9,030	462,210	0·4
1855-9..	598,557	0·2	496,779	13,086	483,691	0·3
1860-4..	963,855	0·3	713,871	16,454	697,417	0·3
1865-9..	1,189,366	0·3	1,165,275	31,768	1,333,507	0·9
1870-4..	1,271,372	0·2	1,408,746	77,733	1,331,013	0·6
1875-9..	760,132	0·1	986,880	43,138	943,482	0·5
1880-4..	658,503	0·1	1,454,084	34,312	1,419,771	0·6
1885-9..	447,555	0·1	1,778,500	60,237	1,718,263	0·7
1890.....	341,208	...	2,083,494	40,388	2,043,106	...
1891.....	374,261	...	1,194,630	29,578	1,165,052	...

The trade of Uruguay shows very little vitality, and no real signs of expansion. The imports decrease, and the exports thereto will necessarily follow suit. Political and financial troubles are the causes.

THE COURSE OF BRITISH TRADE.

27. COLUMBIA.—(a) The area of the United States of Columbia, formerly New Granada, is about 502,000 English square miles, and the population is about 3,500,000, one-half of whom are whites and half-castes. The total imports are £2,669,158, and the exports £2,045,785. The exports consist of woods, hides, caoutchouc, coffee, tobacco, the precious metals, and other products; the imports of textile goods, hardwares, and other manufactured articles. The forests are extensive, the minerals valuable.

(b) *Annual Aggregate Value of Trade between Columbia and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Columbia.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO COLUMBIA FROM THE UNITED KINGDOM.			
			Total Exports from the United Kingdom to Columbia.	Exports of Foreign and Colonial Produce, &c.	Exports of British and Irish Produce and Manufactures.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	376,065	0·2	282,853	12,131	270,722	0·2
1855-9..	492,672	0·2	604,787	32,093	572,694	0·3
1860-4..	851,717	0·3	1,250,583	43,104	1,207,458	0·7
1865-9..	1,261,060	0·3	2,524,315	57,321	2,446,994	1·5
1870-4..	1,008,137	0·2	2,754,962	40,004	2,714,958	1·2
1875-9..	795,038	0·1	924,966	19,251	905,716	0·5
1880-4..	909,417	0·2	1,174,031	54,141	1,119,890	0·4
1885-9..	283,193	...	1,062,435	52,138	1,010,297	0·5
1890.....	304,261	...	1,209,618	65,372	1,144,246	...
1891.....	329,244	...	1,341,233	61,525	1,279,708	...

The foregoing figures show that our trade with Columbia is decreasing, yet there is room for expansion.

THE COURSE OF BRITISH TRADE.

28. VENEZUELA.—(a) The total area of Venezuela is 599,358 English square miles. The population is 2,238,922. The imports are about £3,158,532; the exports £3,376,504. The exports are produce of the forest, agriculture, and the rich mines. The imports are British manufactures—textile goods, iron and steel manufactures, &c.

(b) *Annual Aggregate Value of Trade between Venezuela and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Venezuela.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO VENEZUELA FROM THE UNITED KINGDOM.			
			Total Exports to Venezuela from the United Kingdom.	Foreign and Colonial Exports to Venezuela.	Exports of British and Irish Goods to Venezuela.	Per Cent to Total British Trade.
1854.....	£ 41,996	% ...	£ 307,033	£ 6,134	£ 300,899	% 0·2
1855-9..	34,711	...	356,414	7,565	348,849	0·1
1860-4..	52,723	...	379,562	7,244	372,118	0·1
1865-9..	122,288	...	359,928	8,068	351,860	0·1
1870-4..	82,474	...	417,253	9,224	404,029	0·1
1875-9..	73,781	...	610,123	16,598	593,525	0·2
1880-4..	251,612	...	529,926	5,890	524,036	0·2
1885-9..	208,896	...	599,640	12,603	587,037	0·2
1890.....	308,550	...	837,594	8,616	828,978	...
1891.....	290,997	...	860,490	39,164	821,326	...

Rich as Venezuela is in mineral deposits, forest products, and the capacity for agricultural development, our trade therewith is but trifling in value.

THE COURSE OF BRITISH TRADE.

29. ECUADOR.—(a) The area of Ecuador is about 120,000 English square miles. It has a population of about 1,270,000 inhabitants, Spanish and Indian descent mostly. The total imports of Ecuador amount to about £1,565,055, and the exports to about £1,525,255 per annum. Its chief productions are cocoa, coffee, tobacco, nuts, cotton, bark, india-rubber, ivory, and minerals. The imports are mainly articles of British manufacture in textile goods, iron and steel manufactures, &c.

(b) *Annual Average Trade between Ecuador and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Ecuador.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO ECUADOR FROM THE UNITED KINGDOM.			
			Total Exports to Ecuador by the United Kingdom.	Exports of Foreign and Colonial Produce, &c.	Exports of British and Irish Goods, &c.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	28,907	...	13,611	1,640	11,971	...
1855-9..	61,064	...	21,761	824	20,937	...
1860-4..	75,886	...	49,922	1,629	48,402	...
1865-9..	114,239	...	42,667	2,431	40,326	...
1870-4..	255,117	0·1	78,461	5,011	73,450	...
1875-9..	297,449	0·1	225,226	7,337	217,890	0·1
1880-4..	328,722	0·1	290,693	11,349	279,344	0·1
1885-9..	160,119	...	290,997	12,033	278,964	0·1
1890.....	72,843	...	308,772	18,029	290,743	...
1891.....	110,238	...	275,262	15,391	259,871	...

The trade with Ecuador shows no sign of expansion whatever.

THE COURSE OF BRITISH TRADE.

30. HAYTI AND ST. DOMINGO.—(a) The area of the Republic of Hayti is 29,830 English square miles. The total population is about 550,000. The imports amount to about £301,756, and the exports to £530,012 annually. The chief products are coffee, cocoa, cotton, woods, and logwood. Imports, English manufactures chiefly.

(b) *Annual Average of Trade between Hayti and St. Domingo and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Hayti and St. Domingo.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO HAYTI AND ST. DOMINGO FROM THE UNITED KINGDOM.			
			Total Exports to Hayti and St. Domingo by the United Kingdom.	Exports of Foreign and Colonial Produce, &c.	Exports of British and Irish Goods and Manufactures.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	117,316	...	198,099	3,046	195,053	...
1855-9..	104,887	...	188,048	2,976	185,072	...
1860-4..	188,015	...	442,507	8,398	434,109	0·3
1865-9..	209,811	...	284,921	9,024	275,898	0·1
1870-4..	314,503	...	485,112	16,532	468,580	0·2
1875-9..	278,556	...	400,738	17,248	383,490	0·2
1880-4..	129,829	...	400,903	11,335	389,168	0·2
1885-9..	76,448	...	337,202	11,735	325,468	0·2
1890.....	89,593	...	547,409	19,052	528,357	...
1891.....	44,757	...	335,358	14,360	320,998	...

Apparently there is little chance of any large increase of trade with the Republic of Hayti and St. Domingo, judging by the last thirty years.

THE COURSE OF BRITISH TRADE.

31. MOROCCO.—(a) The total area of Morocco is about 314,000 English square miles, and contains a population estimated at from 1,000,000 to 8,000,000 inhabitants. The total imports amount to about £1,791,627, and the exports to £1,627,176. The chief natural products are corn, fruits, oil, esparto, and hemp; it also possesses rich mineral treasures. The imports are various, but not largely of British manufactures.

(b) *Annual Average Trade between Morocco and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Morocco.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO MOROCCO FROM THE UNITED KINGDOM.			
			Total Exports to Morocco from the United Kingdom.	Exports of Foreign and Colonial Produce.	Exports of British and Irish Goods to Morocco.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	231,593	0·1	92,556	17,480	75,076	...
1855-9..	250,304	0·1	149,512	30,779	118,805	...
1860-4..	382,652	0·1	214,360	52,623	162,210	...
1865-9..	342,942	0·1	253,243	45,064	208,178	0·1
1870-4..	602,687	0·1	337,034	48,867	288,167	0·1
1875-9..	539,262	0·1	406,859	93,296	313,563	0·1
1880-4..	282,396	...	332,292	76,684	255,610	0·1
1885-9..	548,002	0·1	589,092	124,800	438,292	0·2
1890.....	668,034	...	762,001	123,614	638,387	...
1891.....	611,445	...	733,149	140,382	592,767	...

There is little expansion of trade to be expected in this quarter of the globe, except by internal reform.

THE COURSE OF BRITISH TRADE.

32. WESTERN COAST OF AFRICA.—(a) The Congo Free State is here included, but the other portions are not particularly designated. The figures do not include French and Spanish possessions, as they are separately given in the trade returns.

(b) *Annual Average Value of Trade between the United Kingdom and the West and East Coasts of Africa.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from the West and East Coasts of Africa.	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO THE WEST COAST OF AFRICA BY THE UNITED KINGDOM.			
			Total Exports by the United Kingdom to the West and East Coasts of Africa.	Exports of Foreign and Colonial Produce, &c.	Exports of British and Irish Goods, &c.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	1,528,896	0·8	820,941	174,073	646,868	0·6
1855-9..	1,165,305	0·7	953,098	236,395	736,823	0·4
1860-4..	1,480,007	0·6	1,008,004	210,184	797,820	0·3
1865-9..	1,543,238	0·6	957,021	192,923	764,098	0·4
1870-4..	1,850,868	0·4	1,249,697	253,823	995,878	0·5
1875-9..	1,555,537	0·4	1,215,287	253,637	961,651	0·5
1880-4..	1,683,475	0·4	1,512,032	214,270	1,296,362	0·5
1885-9..	1,071,481	0·3	1,260,394	160,767	1,101,646	0·4
1890.....	1,057,123	...	1,659,078	167,114	1,491,964	...
1891.....	512,429	...	978,695	91,320	887,375	...

The figures for 1891 do not appear to agree with those for the other years and periods, perhaps because other places were formerly included, otherwise there is a serious decline in the total trade. The reason appears to be that the Niger Protectorate was included prior to 1891, the figures for which are now included under the head of British Possessions.

THE COURSE OF BRITISH TRADE.

33. OTHER COUNTRIES.—These comprise a number of small States, the aggregate value of whose imports is just over two millions sterling, and the aggregate value of whose exports is less than two millions sterling. The areas, populations, and total trade of these States need not be particularised.

The Annual Average Value of Trade between "other Countries" and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from "other Countries."	Per Cent to Total British Trade.	AGGREGATE EXPORTS TO "OTHER COUNTRIES" FROM THE UNITED KINGDOM.			
			Total Exports to "other Countries" from the United Kingdom.	Exports of Foreign and Colonial Produce.	Exports of British and Irish Goods and Merchandise.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	848,549	0·5	234,899	25,175	209,724	0·2
1855-9..	709,891	0·4	186,881	16,173	170,708	0·1
1860-4..	567,036	0·3	317,836	18,750	289,091	0·1
1865-9..	686,638	0·3	450,371	22,971	409,399	0·2
1870-4..	1,406,625	0·3	759,778	53,778	705,394	0·3
1875-9..	1,647,302	0·3	1,159,987	116,303	1,043,684	0·5
1880-4..	2,032,961	0·4	1,553,710	126,108	1,427,602	0·7
1885-9..	1,507,134	0·4	1,507,002	126,002	1,381,000	0·6
1890.....	1,961,889	...	2,189,701	183,341	2,006,360	...
1891.....	.....	...	.....	.....	.....	...

The totals in the above cases have been reduced to a minimum in order that the several States shall be particularised, so far as possible, individually.

THE COURSE OF BRITISH TRADE.

The following synoptical view of the whole will be useful for comparison in so far as the figures relate to non-competing countries in relation to the United Kingdom:—

SYNOPSIS:— NAME OF THE COUNTRY TRADING WITH THE UNITED KINGDOM.	1880-84. AGGREGATE TRADE WITH THE UNITED KINGDOM.		1885-89. AGGREGATE TRADE WITH THE UNITED KINGDOM.	
	Total Imports into the United Kingdom.	Total Exports from the United Kingdom.	Total Imports into the United Kingdom.	Total Exports from the United Kingdom.
	£	£	£	£
Turkey	4,760,413	7,236,170	4,415,958	6,377,368
Egypt	9,202,943	3,167,825	7,924,083	3,549,991
China	10,548,511	5,114,869	7,179,063	5,948,713
Japan	650,734	2,915,817	712,105	3,296,999
Roumania	3,169,185	1,215,334	3,116,426	1,063,512
Greece	1,883,307	1,221,273	1,819,949	1,020,851
Argentine Republic..	962,160	4,242,052	2,075,371	7,037,129
Brazil	5,874,638	6,991,927	4,640,589	6,273,785
Chili ...	3,129,784	2,481,111	2,667,198	2,217,657
Mexico	645,586	1,525,891	542,264	1,209,278
Peru	2,371,977	925,572	1,688,938	1,005,315
Central America	1,300,840	840,982	1,168,457	890,039
Uruguay	658,503	1,454,084	447,555	1,778,500
Columbia	909,417	1,174,031	283,193	1,062,435
Venezuela	251,612	529,926	208,896	599,640
Ecuador	328,722	290,693	160,119	290,997
Hayti & St. Domingo	129,829	400,903	76,448	337,202
Morocco	282,396	332,292	548,002	589,092
Yearly Averages of the Aggregate Totals	47,060,557	42,061,752	39,674,614	44,548,503

The review of our foreign trade furnished by the preceding analysis of the returns during the last thirty-eight years, and particularly the synopsis for the last few years, affords food for profound reflection. In the first place, the total imports from countries supposed to be more or less in competition with us amounted in the quinquennial period 1885 to 1889 to £247,942,895 or in round figures to 248 millions sterling. In the same period 1885 to 1889, the total exports to these countries amounted to £152,061,207. This trade has been carried on in spite of adverse tariffs, and of the development of native industry in the United States, in France, in Germany, in Belgium, in Holland, and all the

THE COURSE OF BRITISH TRADE.

other industrial nations of Europe. The aggregate of such trade with the thirteen countries mentioned as being competing countries amounted to over 400 millions sterling, including the imports and the exports combined. To talk of retaliatory tariffs in relation to these countries would be sheer madness, the attempt to do so would mean the industrial ruin of the United Kingdom.

The foregoing comparison of our trade with non-competing countries shows at once where our strength lies, and where expansion is possible, in so far as expansion is possible in those quarters of the globe with which we have commercial relations. The following figures show at a glance our total trade with non-competing countries, and its growth during the last ten years:—

SYNOPSIS OF TRADE WITH NON-COMPETING COUNTRIES.	1880-84.		1885-89.	
	Total Imports into the United Kingdom.	Total Exports from the United Kingdom.	Total Imports into the United Kingdom.	Total Exports from the United Kingdom.
	£	£	£	£
Eighteen Chief Countries.....	47,060,557	42,061,752	39,674,614	44,548,503
West Coast of Africa	1,683,475	1,512,032	1,071,481	1,260,394
Other Countries.....	2,032,961	1,553,710	1,507,134	1,507,002
Aggregate Totals.....	50,776,993	45,126,494	42,254,229	47,361,899

The serious aspect of these figures is that the imports from those countries have decreased by about seven-and-a-half millions sterling, and our exports to those countries have only increased by a trifle over two millions sterling during the last two quinquennial periods. If our imports from those countries decrease, our exports to those countries will inevitably decrease also, for they are too impoverished to pay in gold for our merchandise and manufactures. Higher tariffs only make them poorer, and at the same time inflict an injury upon our commerce and trade.

III.—BRITISH COLONIES AND POSSESSIONS.

1. INDIA.—British India stands first in importance on account of its vast area, its enormous population, and its aggregate trade. It might also be said, by reason of its great wealth; but side by side with its wealth there exists the most deplorable poverty among the great mass of the people. “Rich as the Indies” used to be a common expression, but the riches are not shared by the common

THE COURSE OF BRITISH TRADE.

people. In estimating the total trade of British India it must be borne in mind that Rx. stands for "tens of rupees," the nominal value of the rupee being 2s., or one-tenth of a pound sterling. But the fall in the price of silver has reduced the rupee in value to about 1s. 4d., or to about two-thirds of its nominal value. The actual volume of trade is therefore greater than its real value to that extent. But the rate of exchange varies at different periods, so that it is difficult to fix the exact relations of the rupee to the one pound sterling English money. For the five years ending 1880 and 1881 the average value of the rupee was about 1s. 8d., in 1890 and 1891 the average value was not much over 1s. 4d., so that ten rupees in the former period would represent 16s. 8d. in the £, whereas in 1890 and 1891 ten rupees would only represent 13s. 4d.; loss by exchange, 3s. 4d. in the £. This loss by exchange has severely tried Lancashire, and also India.

(a) Area, Population, and Total Trade of India.

The total area of British India is officially given as 1,533,611 English square miles. Of that area 944,489 square miles are claimed as British territory, and 589,122 square miles as Native, but Feudatory States. The total population, according to the preliminary census of 1891, was 220,490,980 in British territory, and 64,123,230 in the Native States; total population, 284,614,210. The aggregate trade of India has averaged annually as follows:—

AVERAGES: SEVEN YEARS.	IMPORTS.		EXPORTS.	
	Tens of Rupees.	Increase per Cent.	Tens of Rupees.	Increase per Cent.
1861-1868	46,564,217	.....	55,247,350	.....
1868-1875	43,144,965	7·34	57,379,611	3·86
1875-1882	53,158,379	23·21	69,432,191	21·00
1882-1889	72,768,240	36·29	89,300,256	28·62
1890-1.....	69,197,489	.....	103,460,398	.....

Treasure, or bullion and specie, are excluded from the above table, the imports of which amounted in 1890 to over 17¼ millions, and the exports about two millions sterling. The imports of gold have of late largely increased.

THE COURSE OF BRITISH TRADE.

(b) Total Trade between India and the United Kingdom.

The total trade between India and the United Kingdom, exclusive of treasure, that is to say of merchandise only, during the last two years, is as follows—in tens of rupees, or the nominal pound sterling:—

YEARS.	Total Imports from India into the United Kingdom.	Total Exports from the United Kingdom into India.	Aggregate Trade between India and the United Kingdom.	Total Exports of British Goods.
	£	£	£	£
1889.....	36,199,204	32,429,249	68,628,473	31,047,892
1890.....	32,668,797	35,230,114	67,898,911	33,641,001
Totals	68,868,001	67,659,363	136,527,384	64,688,893
Averages ...	34,434,000	33,829,681	68,263,692	32,344,446
1891.....	32,234,398	32,549,207	64,783,605	31,177,968

Considering the vast area of India, its enormous population, and its aggregate wealth, the total trade is insignificant; it is only about double that of Belgium, with an area of only 11,370 square miles, and a population of 6,069,321 inhabitants.

(c) The Yearly Average Value of Trade between India and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from India.	Per Cent to Total British Trade.	Aggregate Exports to India from the United Kingdom.	Exports of Foreign and Colonial Produce, &c.	Exports of British and Irish Produce and Goods.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1884.....	10,672,862	7·2	9,620,710	493,154	9,127,556	9·3
1855-9..	15,755,141	9·3	14,349,441	591,568	13,757,873	12·1
1860-4..	34,387,848	14·5	18,331,130	741,411	17,589,720	13·0
1865-9..	32,620,510	11·3	20,626,197	849,063	19,777,334	10·9
1870-4..	30,119,790	8·7	21,268,452	1,015,714	20,252,738	8·5
1875-9..	28,711,154	7·6	24,652,952	1,324,671	23,328,281	11·3
1880-4..	33,199,901	8·7	31,821,555	1,578,929	30,242,625	12·9
1885-9..	32,301,073	8·5	32,381,335	1,375,170	31,006,365	13·7
1890.....	32,668,797	...	35,230,114	1,589,113	33,641,001	...
1891.....	32,234,398	...	32,549,207	1,371,239	31,177,968	...

THE COURSE OF BRITISH TRADE.

A close examination of the preceding table shows that the trade of India with the United Kingdom is very nearly at a standstill. In point of fact the aggregate imports from India show a decrease since 1860 to 1864, while the exports to India have scarcely increased at all during the last twelve years. When it is remembered that British money has been spent in developing the resources of India the returns are very disappointing. The volume of trade increases with other countries, but not with England, and especially does the trade of India expand with the silver-using countries of the East.

(d) Nature and Character of the Exports from India.

The chief exports by India comprise the following, the values being given in tens of rupees, nominal value of one pound sterling :—

CHARACTER OF THE EXPORTS.	1880-81.	1889-90.
Cotton—raw for all purposes	13,242,000	18,671,000
Cotton Yarns and Cloths, &c.	3,108,000	8,574,000
Jute in the raw state	3,934,000	8,640,000
Jute manufactures—all kinds	1,131,000	2,791,000
Hides and Skins	3,736,000	4,524,000
Wool—raw of all kinds	1,171,000	1,779,000
Tea of all qualities	3,100,000	5,446,000
Sugar of all kinds	507,000	1,185,000
Wheat and other grain	3,278,000	5,793,000
Rice—exclusive of grain	9,057,000	10,110,000
Indigo—other dyes not included	3,571,000	3,863,000
Seeds of all kinds	6,392,000	10,631,000
Opium	13,600,000	10,116,000
Total, including all other articles.....	74,531,282	103,396,862

The apparent increase is about 40 per cent, but the value of the rupee in 1880 was 1s. 8d., in 1890 it was only 1s. 4½d. If the difference between the two values are subtracted the value of the exports in 1889 and 1890 was only 86,164,052 tens of rupees, on the same basis of value.

THE COURSE OF BRITISH TRADE.

e) *The Chief Countries Trading with India in Order of Value, Rx.*

COUNTRIES.	EXPORTS FROM INDIA TO		IMPORTS INTO INDIA BY	
	1889.	1890.	1889.	1890.
	Rx.	Rx.	Rx.	Rx.
United Kingdom.....	36,250,572	37,950,864	52,576,440	50,291,140
China	14,024,557	13,801,477	1,911,836	2,499,501
France.....	8,410,444	7,714,867	914,334	795,647
Belgium	4,663,799	5,641,048	526,698	873,827
Straits Settlements..	4,072,307	4,536,746	2,278,413	2,441,400
United States.....	3,589,255	3,736,324	1,040,318	1,729,156
Italy	3,470,113	4,217,755	504,797	510,508
Egypt	3,483,800	3,869,974	78,042	75,898
Austria	3,040,638	2,960,484	768,385	703,716
Ceylon.....	1,993,056	2,195,241	554,379	632,119
Germany.....	1,493,278	2,764,657	248,016	563,911
Australia.....	1,088,250	1,063,489	294,111	391,732
Japan	1,035,304	1,218,998	23,835	28,127
Arabia.....	677,904	825,146	340,092	373,570
Mauritius	633,511	1,015,580	1,575,048	1,735,001
East Coast of Africa.	410,193	563,263	659,750	419,623
Holland	337,137	358,705	11,715	9,469
Spain	383,908	407,075	8,361	9,242
Persia	303,747	497,102	730,957	803,916

2. AUSTRALASIA.—The Australian Colonies represent our own kith and kin, and the colonising spirit and policy of the British nation, more accurately than any other colonies or possessions in the world. Its colonisation, the development of its resources, the growth of its population, the opening up of the country by railways, the construction of its harbours, and even the building of its houses and public buildings have mainly been the work of one generation of men; Mr. Gladstone, for example, might well be able to remember when Australia was little more than a mere penal settlement. There is room in the great island-continent and the adjacent islands for the development of a great empire, or, let us hope, a great federal republic, as a home for the surplus population of the British race, crowded out of the United Kingdom.

(a) *Area, Population, and Aggregate Trade of Australasia.*

The total area of the seven great divisions by which Australia is officially known, namely, New South Wales, Victoria, New Zealand, Queensland, South Australia, Western Australia, and Tasmania,

THE COURSE OF BRITISH TRADE.

named here in the order of population rather than of area, is 3,161,444 English square miles. This excludes Fiji and some of the islands. The total population in 1890 was only 3,832,066. The total population has nearly doubled itself in twenty years, for in 1871 the total number of inhabitants was only 1,924,770. The growth of population is very largely due to a constant stream of immigration into Australia. The aggregate trade of the Australian Colonies is as follows:—

YEARS AND AVERAGES.	Total Imports into Australia.	Total Exports by Australia.	Aggregate Trade of Australia.	British Shipping Entered and Cleared.
	£	£	£	Tons.
1889.....	68,860,855	62,588,454	131,449,309	14,131,929
1890.....	67,930,876	64,664,574	132,595,450	13,462,850
Totals	136,791,731	127,253,028	264,044,759	27,594,779
Averages ...	68,395,865	63,626,514	132,022,379	13,797,389

The foregoing figures include bullion and specie, which, combining the imports and exports, amount in value to nearly £10,000,000 a year, of which over one-half consist of exports and under one-half imports. The foreign tonnage entered and cleared is about, or rather under, 2,000,000 tons a year; in 1890 the total was 1,932,166 tons.

(b) *Total Trade between Australia and the United Kingdom.*

The total trade between the Australian Colonies, including the Fiji Islands, and the United Kingdom for the last three years has been as under:—

YEARS AND AVERAGES.	Total Imports from Australia into the United Kingdom.	Total Exports from the United Kingdom into Australia.	Aggregate Trade between the United Kingdom and Australia.	Exports of British and Irish Goods, &c., to Australia.
	£	£	£	£
1889.....	26,804,592	25,621,783	52,426,375	22,879,290
1890.....	29,350,844	25,470,194	54,821,038	23,006,004
Totals	56,155,436	51,091,977	107,247,413	45,885,294
Averages ...	28,077,718	25,545,988	53,623,706	22,942,647
1891.....	31,261,571	28,256,120	59,517,691	25,500,194

THE COURSE OF BRITISH TRADE.

Considering the vast area and resources of Australia, the total trade with the United Kingdom is not large; but, considering the aggregate population, there is not much to complain of as regards the ratio per inhabitant. With free ports for all produce and manufactures on both sides, the aggregate trade is capable of enormous expansion.

(c) *The Yearly Average Value of Trade between Australia and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Australia.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom to Australia.	Exports of Foreign and Colonial Merchandise to Australia.	Exports of British and Irish Goods, &c., to Australia.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	4,031,868	2·6	13,405,986	1,474,634	11,931,352	12·4
1855-9..	5,457,603	3·3	11,235,424	1,332,115	9,903,309	8·4
1860-4..	7,536,107	3·1	12,309,556	969,499	11,340,057	8·0
1865-9..	11,859,893	4·1	13,317,897	901,211	12,416,686	6·9
1870-4..	15,946,338	4·7	15,445,119	1,292,214	14,153,105	6·0
1875-9..	21,414,576	5·8	20,336,694	1,876,182	18,460,512	9·1
1880-4..	26,412,040	6·5	24,965,095	2,607,843	22,357,253	9·4
1885-9..	24,058,845	6·3	25,940,541	2,802,742	23,337,800	10·2
1890.....	29,350,844	...	25,470,194	2,464,190	23,006,004	...
1891.....	31,261,571	...	28,256,120	2,755,926	25,500,194	...

The preceding figures show a gradual but slow expansion of trade between the United Kingdom and the Australian Colonies, but the annual average increase in the last fifteen years has been but trifling, and so far as the exports of British manufactures are concerned. In the last year the total exports only exceeded those of 1888 by a couple of hundred pounds, and did not reach the total of 1885. The proportion of British goods exported in 1885 to 1889 was less by 2·2 per cent than the ratio of 1854, in comparison to the aggregate exports of British and Irish manufactures and produce to all countries.

3. BRITISH NORTH AMERICA.—British North America includes the Dominion of Canada—Ontario and Quebec, New Brunswick, Nova Scotia, Manitoba, British Columbia, Prince Edward Island, Vancouver Island, the North-West Territories—and Newfoundland, to which also may be added Labrador. The latter territory is not,

THE COURSE OF BRITISH TRADE.

however, included in the area given under the above head, nor the population, in the official returns. Here, however, they are added, because the trade returns include Labrador, and consequently the figures to be given would be incomplete without them. The area of Labrador is about 120,000 square miles, the population 4,211.

(a) *Area, Population, and Total Trade of British
North America.*

The total area of British North America is 3,568,542 English square miles. The total population in 1890 was 5,026,733 inhabitants. Great efforts are being made to colonise and develop British Columbia and Manitoba and other parts of British North America, both by the Dominion of Canada and by private companies interested in land and shipping. The aggregate trade of British North America is stated officially to be as follows:—

YEARS AND AVERAGES.	Total Imports into British North America.	Total Exports into British North America.	Aggregate Trade of British North America.	British Shipping Entered and Cleared.
	£	£	£	Tons.
1889.....	25,052,828	19,602,163	44,654,991	5,562,495
1890.....	26,366,209	21,150,730	47,516,939	5,915,958
Totals	51,418,037	40,752,893	92,171,930	11,478,453
Averages...	25,709,019	20,376,446	46,085,965	5,739,226

The total imports into British North America do not increase on the whole, though the value is some five-and-a-quarter millions above the figures for 1876. In the year 1882 the value slightly exceeded that of 1890, while in 1883 the excess was over three millions sterling. Again, the total value of the exports really decreases; the average of the last six years is below that of the previous six years. With decreasing exports, or even when they remain stationary, there is very little chance of any large increase in the imports, especially in a country where the people are not required to import food to any large extent. Yet it is averred that British North America is making rapid strides in various ways. Internal development might be going on rapidly, and no doubt it is in some quarters, but, on the whole, the trade returns do not bear out the glowing descriptions of prosperity which we so often hear from various quarters.

THE COURSE OF BRITISH TRADE.

(b) Total Trade between British North America and the United Kingdom.

The total trade between British North America and the United Kingdom during the last three years has amounted in value to the following figures:—

YEARS AND AVERAGES.	Total Imports into the United Kingdom from British North America.	Total Exports from the United Kingdom to British North America.	Aggregate Trade between the United Kingdom and British North America.	Total Exports of British and Irish Goods to British North America.
	£	£	£	£
1889.....	12,191,370	9,427,991	21,619,361	8,141,586
1890.....	12,444,489	8,272,743	20,717,232	7,225,911
Totals	24,635,859	17,700,734	42,336,593	15,367,497
Averages ...	12,317,929	8,850,367	21,168,296	7,683,748
1891.....	12,606,415	8,299,942	20,906,357	7,245,771

Having regard to the population, the total trade with British North America is not by any means satisfactory as compared with our trade with the Australian Colonies, but the proximity of the United States and the facilities of transit between the United States and British North America will account for the smaller proportion.

(c) The Yearly Average of Trade between British North America and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from British North America.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom into British North America.	Exports of Foreign and Colonial Produce, &c., to British North America.	Total Exports of British and Irish Goods, &c., to British North America.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	7,192,134	4·6	6,281,303	300,427	5,980,876	6·2
1855-9..	5,620,002	3·3	3,910,063	287,898	3,622,165	3·1
1860-4..	7,802,124	3·3	4,962,219	580,741	4,363,477	3·6
1865-9..	6,898,407	2·5	6,326,698	846,284	5,480,414	3·1
1870-4..	10,104,968	3·0	9,512,015	883,731	8,637,284	3·6
1875-9..	10,649,780	2·8	7,823,317	645,320	7,177,987	3·5
1880-4..	11,682,422	2·8	9,660,527	934,534	8,725,593	3·8
1885-9..	10,557,377	2·8	8,955,433	1,170,698	7,284,735	3·4
1890.....	12,444,489	...	8,272,743	1,046,832	7,225,911	...
1891.....	12,606,415	...	8,299,942	1,054,171	7,245,771	...

THE COURSE OF BRITISH TRADE.

The preceding figures accentuate the unsatisfactory condition of our trade with British North America. For twenty years the imports from the Dominion of Canada remained nearly stationary, but during the last two years there was an increase of imports by about two millions. The exports of British goods to the Dominion are even less satisfactory, for they show a decrease as compared with the five years 1870 to 1874, and the average of the last seven years are even below the average of 1880 to 1884. As a matter of fact, there are few indications of any real expansion of trade between British North America and the United Kingdom, in so far as present appearances go. This is a fact to be borne in mind in discussing Federation projects.

4. SOUTH AFRICAN COLONIES.—(a) *Area, Population, and Total Trade.*—These colonies include Cape Colony, Natal, Bechuanaland, Basutoland, and Zululand, and other parts more or less under British protection. The total area is officially given as 240,061 English square miles, but including all the “protected” territory it is over 250,000 square miles. The population in 1890 was 2,069,652, but possibly it is 200,000 more. The total trade of these colonies in 1890 amounted to £26,315,721, thus—imports £14,597,441, and exports £11,718,280. In proportion to population the trade is large.

(b) *Total Trade between the South African Colonies and the United Kingdom.*

The aggregate trade between the South African Colonies and the United Kingdom is growing and extending, though not to the extent as the figures of 1880, 1881, and 1882 gave promise. Indeed, the present average is but little over that of 1880 to 1883. The following are the figures for 1889 and 1890, with totals and averages :—

YEARS AND AVERAGES.	Total Imports into the United Kingdom from the South African Colonies.	Total Exports from the United Kingdom to the South African Colonies.	Aggregate Trade between the United Kingdom and the South African Colonies.	Total Exports of British and Irish Goods, &c., to the South African Colonies.
	£	£	£	£
1889.....	6,117,850	9,801,076	15,918,926	8,998,915
1890.....	6,956,612	9,803,552	16,760,164	9,128,164
Totals	13,074,492	19,604,628	32,679,090	18,127,079
Averages...	6,537,246	9,802,314	16,339,545	9,063,539

The average exports to the South African Colonies in the three years 1880 to 1883 amounted to close upon eight millions sterling, increasing one-and-three-quarter millions since.

THE COURSE OF BRITISH TRADE.

(c) *The Yearly Average of Trade between the South African Colonies and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from the South African Colonies.	Per Cent to Total British Trade.	Aggregate Exports to the South African Colonies from the United Kingdom	Exports of Foreign and Colonial Pro- duce, &c., to the South African Colonies.	Exports of British and Irish Goods, &c., to the South African Colonies.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	691,352	0·7	985,266	63,309	921,957	1·0
1855-9..	1,530,855	1·1	1,612,349	85,418	1,506,931	1·4
1860-4..	1,709,743	0·8	2,061,484	108,208	1,953,276	1·5
1865-9..	2,669,317	1·0	1,697,621	66,355	1,631,267	1·1
1870-4..	3,573,612	1·0	3,523,803	243,895	3,279,908	1·4
1875-9..	4,477,636	1·1	5,273,138	440,986	4,832,146	2·5
1880-4..	5,834,245	1·4	6,501,756	530,280	5,971,476	2·6
1885-9..	5,193,926	1·4	5,903,812	487,883	5,415,929	2·4
1890.....	6,095,612	...	9,803,552	675,388	9,128,164	...
1891.....	6,254,428	...	9,638,537	680,659	7,957,878	...

There are some indications of possible and even probable expansion in our trade with the South African Colonies, especially in the last two years, otherwise the average of our exports to the Cape, Natal, &c., in the five years 1885 to 1889 did not even reach the average of 1880 to 1884. The growth appears to be rather uncertain at the present time.

5. WEST INDIA ISLANDS AND BRITISH GUIANA.—(a) *Area, Population, and Total Trade of the West India Islands and British Guiana.*—The West India Islands comprise the Bahamas, Jamaica, Turks Islands, the Windward Islands, the Leeward Islands, Trinidad, &c. The total area, including Guiana, is about 121,031 English square miles, or nearly the same area as the United Kingdom. The total population in 1890 was about 1,628,838 inhabitants. The total imports in 1890 amounted in value to £7,788,127, and the exports to £8,605,307.

b) *Total Trade between the West India Islands, British Guiana, and the United Kingdom.*

The total value of the trade between the West India Islands and British Guiana is decreasing, the larger proportion of the decrease being in the exports from the Islands. The recent averages of our

THE COURSE OF BRITISH TRADE.

imports from them are not more than one-half what they were thirty years ago. Our exports have, however, doubled in the same period, though recently the averages have receded somewhat.

YEARS AND AVERAGES.	Total Imports into the United Kingdom from the West Indies and Guiana.	Total Exports from the United Kingdom to the West India Islands and Guiana.	Aggregate Trade between the United Kingdom and the West India Islands and Guiana.	Total Exports of British and Irish Goods, &c., to the West India Islands and British Guiana.
	£	£	£	£
1889.....	3,880,507	3,389,813	7,270,320	3,018,940
1890.....	2,714,287	3,922,662	6,636,929	3,520,835
Totals.....	6,594,794	6,312,455	13,907,249	6,539,775
Averages...	3,297,392	3,156,227	6,953,624	3,269,887

The total of the imports for the two years given is only about equal to the imports of 1880; the exports are about equal to those of the last twenty years.

(c) *The Yearly Average of Trade between the West India Islands, British Guiana, and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from the West India Islands and British Guiana.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom to the West India Islands and British Guiana.	Foreign and Colonial Exports from the United Kingdom to the West India Islands and Guiana.	Total Exports of British and Irish Goods, &c., to the West India Islands and British Guiana.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	5,613,538	4.0	2,069,143	198,469	1,870,674	2.1
1855-9..	6,000,087	3.4	2,316,248	226,350	2,089,989	1.7
1860-4..	7,563,382	3.0	3,495,801	349,257	3,146,544	2.2
1865-9..	6,391,755	2.2	2,842,102	272,474	2,569,628	1.2
1870-4..	6,407,690	1.8	3,544,913	319,825	3,225,086	1.3
1875-9..	6,874,241	1.8	3,090,804	307,684	2,783,150	1.5
1880-4..	5,721,540	1.4	3,352,866	339,748	3,013,118	1.3
1885-9..	3,336,117	0.9	2,984,333	321,703	2,662,430	1.2
1890.....	2,714,287	...	3,922,642	401,807	3,520,835	...
1891.....	2,443,758	...	3,345,005	434,855	2,910,150	...

There seems to be little chance of any improvement in the condition of trade between the West Indies and the United Kingdom. The

THE COURSE OF BRITISH TRADE.

total trade with these islands is less, far less, than it was thirty years ago. The total trade last year was only about five-and-a-half millions sterling, whereas in the five years 1860 to 1864 the total amounted to ten-and-a-half millions sterling.

6. THE STRAITS SETTLEMENTS.—(a) *Area, Population, and Total Trade.*—The Straits Settlements include Singapore, Penang, the Province of Wellesley, and Malacca. The total area is officially given as 1,472 English square miles, and the population in 1890 as 106,673. The total imports in 1890 in value are stated to amount to £24,549,553, and the exports to £21,320,614. The trade has so increased during the last fifteen years that both the imports and the exports have more than doubled in value, from twenty-one to forty-one millions sterling.

(b) *Total Trade between the Straits Settlements and the United Kingdom.*

The total trade very slowly increases between the Straits Settlements and the United Kingdom, but the increase is mainly due to the augmented exports to this country. Our exports to the Straits have varied but little during the last twenty years, though the yearly average does tend towards a higher level.

YEARS AND AVERAGES.	Total Imports into the United Kingdom from the Straits Settlements.	Total Exports from the United Kingdom to the Straits Settlements.	Total Exports of Foreign and Colonial Produce to the Straits Settlements.	Exports of British and Irish Goods, &c., to the Straits Settlements.
	£	£	£	£
1889.....	5,417,034	2,526,897	7,943,931	2,402,474
1890.....	5,187,801	3,024,655	8,212,456	2,883,244
Totals	10,604,835	5,551,552	16,156,387	5,285,718
Averages...	5,302,417	2,775,776	8,078,193	2,642,859

The foregoing figures for two years indicate pretty clearly the nominal condition of trade year by year, with only slight variations and fluctuations.

THE COURSE OF BRITISH TRADE.

(c) The Yearly Average of Trade between the Straits Settlements and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from the Straits Settlements.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom to the Straits Settlements.	Exports of Foreign and Colonial Produce to the Straits Settlements.	Exports of British and Irish Goods to the Straits Settlements.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	794,105	0·4	540,418	24,281	516,137	0·5
1855-9..	846,828	0·5	990,099	25,406	964,692	0·8
1860-4..	1,848,728	0·7	1,324,834	37,213	1,288,021	1·2
1865-9..	1,912,749	0·6	1,827,538	72,880	1,754,657	1·0
1870-4..	2,967,577	0·7	2,399,059	102,811	2,296,249	1·1
1875-9..	2,723,274	0·7	2,127,778	125,547	2,002,231	1·0
1880-4..	4,263,502	0·8	2,661,541	176,043	2,485,495	1·1
1885-9..	5,072,970	1·4	2,544,212	158,439	2,385,774	0·9
1890.....	5,187,801	...	3,024,655	141,411	2,883,244	...
1891.....	5,356,865	...	2,589,262	125,719	2,463,543	...

During the last twenty-two years there has been very little progress in our exports to the Straits Settlements, and there does not appear to be any prospect of any great increase in our exports. But the imports into this country increase, and possibly, therefore, there may be some expansion of exports.

7. HONG KONG.—(a) The area of Hong Kong is officially given as 30½ English square miles, and its population as 221,441 persons. The total value of the imports into Hong Kong is stated as being £2,528,212, and of exports as £1,225,064. No official returns are, however, made as to the imports and exports, except with the United Kingdom.

THE COURSE OF BRITISH TRADE.

(b) Total Value of Trade between Hong Kong and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Hong Kong.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom to Hong Kong.	Exports of Foreign and Colonial Merchandise.	Total Exports of British and Irish Goods and Produce.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	Included in China Imports	...	478,293	10,216	468,077	0·4
1855-9..		...	1,043,205	45,556	997,651	0·6
1860-4..	1,110,855	0·3	1,761,843	84,422	1,677,053	0·9
1865-9..	351,290	...	2,235,243	90,377	2,144,867	1·1
1870-4..	624,155	0·1	3,442,714	216,465	3,226,250	1·4
1875-9..	1,381,725	0·3	3,383,173	181,724	3,201,389	1·5
1880-4..	1,184,659	0·3	3,509,322	202,214	3,307,148	1·4
1885-9..	1,271,919	0·3	2,967,602	243,290	2,724,312	1·3
1890.....	1,225,064	...	2,741,404	213,192	2,528,212	...
1891.....	1,101,702	...	2,732,157	200,829	2,531,328	...

In the nature of things it is improbable that any expansion of trade can take place between Hong Kong and the United Kingdom.

8. CEYLON.—(a) The area of Ceylon is 25,365 English square miles; the population in 1890 was 3,008,239 persons. The total trade amounted to—imports, £4,731,895, and the exports to £3,834,550. The total trade in 1890 was less than in 1876 and 1877, when the average yearly imports amounted to £5,192,824 a year, and the exports to £4,778,501. But the trade of the last two years is better than that of the six previous years.

THE COURSE OF BRITISH TRADE.

(b) Total Value of Trade between Ceylon and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Ceylon.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom to Ceylon.	Total Exports of Foreign and Colonial Produce to Ceylon.	Total Exports of British and Irish Goods and Produce to Ceylon.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	1,506,646	...	413,504	31,228	382,276	0·3
1855-9..	1,523,313	...	510,855	27,018	483,837	0·3
1860-4..	2,777,435	...	770,069	43,245	726,826	0·4
1865-9..	3,521,939	...	868,191	32,811	833,378	0·5
1870-4..	3,542,660	...	1,065,036	51,970	1,013,064	0·4
1875-9..	3,700,953	...	1,009,845	53,903	955,943	0·4
1880-4..	2,494,053	...	839,611	42,535	797,076	0·2
1885-9..	2,417,261	...	681,412	36,893	644,922	0·1
1890.....	3,411,209	...	964,935	43,320	921,615	...
1891.....	4,168,998	...	1,061,374	44,801	1,016,573	...

Notwithstanding some new developments in the condition of Ceylon, our trade with that colony has only slightly increased over the average of the five years 1870 to 1874.

9. WEST AFRICA (GAMBIA AND SIERRA LEONE).—(a) The area of this territory is officially given as 3,069 English square miles, but the “Statesman’s Year Book” gives it as 17,700 square miles, and the population as 230,000 people. The total imports were in 1890 £539,456, and the exports £512,693. The district is large and is undeveloped as yet, but is capable of extended trade.

THE COURSE OF BRITISH TRADE.

(b) Total Trade between Western Coast of Africa and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from West Africa.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom to West Africa.	Total Exports of Foreign and Colonial Produce, &c.	Total Exports of British and Irish Goods and Produce.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	433,561	0·3	206,121	57,714	148,407	...
1855-9..	141,611	...	262,205	48,632	213,573	0·1
1860-4..	110,149	...	284,938	51,524	227,613	0·1
1865-9..	123,474	...	315,908	53,637	262,271	0·1
1870-4..	109,955	...	355,981	51,452	304,529	0·2
1875-9..	138,991	...	336,964	49,874	287,089	0·1
1880-4..	215,804	0·1	377,819	44,117	333,702	0·1
1885-9..	175,820	...	324,008	31,026	292,982	0·1
1890.....	258,839	...	402,009	39,047	362,962	...
1891.....	277,334	...	437,979	41,322	396,657	...

The preceding figures show that the total trade of the United Kingdom with this part of Africa is, up to the present time, almost insignificant.

10. THE GOLD COAST AND LAGOS.—(a) The total area of this district is given as 30,470 English square miles, and the population as about 230,000 people. The total imports into these countries amounted in 1890 to £1,062,930, the exports to £1,196,541. The increase during the last sixteen years is but trifling in amount. The transit trade is also included in the total trade above given.

THE COURSE OF BRITISH TRADE.

(b) The Total Trade between these Countries and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from the Gold Coast, &c.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom to the Gold Coast, &c.	Total Exports of Foreign and Colonial Produce, &c., to the Gold Coast.	Total Exports of British and Irish Goods and Produce to the Gold Coast, &c.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	71,253	...	134,885	17,466	117,419	...
1855-9..	69,984	...	108,486	17,045	91,441	...
1860-4..	101,195	...	127,951	20,820	107,032	...
1865-9..	369,239	0·1	332,654	32,200	302,458	0·1
1870-4..	405,086	0·1	455,485	29,741	425,744	0·2
1875-9..	513,052	0·1	536,296	42,502	493,794	0·2
1880-4..	533,427	0·1	503,299	35,885	467,413	0·1
1885-9..	671,497	0·1	482,547	44,047	438,000	0·1
1890.....	816,933	...	539,343	50,003	489,340	...
1891.....	1,047,002	...	746,153	54,114	692,039	...

The apparent increase last year was because the figures for Lagos are given in the last year's returns, and are here added to those for the Gold Coast.

11. MAURITIUS.—(a) The area of Mauritius is 705 English square miles. The total population in 1891 was 377,986. The total trade is about £5,584,040. The total value of imports in 1889 was £2,821,958, and the exports in 1890 were £2,762,082.

(b) Total Value of Trade between Mauritius and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Mauritius.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom to Mauritius.	Exports of Foreign and Colonial Produce to Mauritius.	Total Exports of British and Irish Goods, &c., to Mauritius.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	1,677,533	0·9	401,146	17,936	383,210	0·3
1855-9..	1,922,302	1·0	534,682	23,248	511,234	0·4
1860-4..	1,628,412	0·6	584,177	28,665	555,513	0·4
1865-9..	1,037,852	0·4	477,131	13,204	461,927	0·3
1870-4..	1,112,498	0·3	571,971	36,244	535,730	0·3
1875-9..	1,036,205	0·3	428,052	40,223	387,832	0·2
1880-4..	390,230	0·1	484,585	47,800	436,786	0·2
1885-9..	295,820	...	303,706	30,854	272,852	0·1
1890.....	264,900	...	346,631	26,305	320,326	...
1891.....	268,066	...	276,795	20,200	256,595	...

THE COURSE OF BRITISH TRADE.

The total trade between Mauritius and the United Kingdom has declined by one-half in our exports, and by three-fourths in our imports from that colony.

12. BRITISH HONDURAS.—(a) The area of British Honduras is 6,400 English square miles. The population in 1891 was 31,471. The total value of imports in 1890 was £121,966, and of exports £124,407. The dollar in this case is converted at 3s. 1d., which was the value in 1891. The fluctuating currency in this case, as in others, increases or decreases the total value, in proportion to the rise and fall of the dollar.

(b) *Total Value of Trade between British Honduras and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from British Honduras.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom to British Honduras.	Exports of Foreign and Colonial Produce, &c., to British Honduras.	Total Exports of British and Irish Goods, &c., to British Honduras.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	567,234	...	143,976	6,270	137,706	...
1855-9..	395,349	...	163,768	7,196	156,572	...
1860-4..	314,998	...	172,985	9,357	163,627	...
1865-9..	198,978	...	131,647	9,112	142,534	...
1870-4..	165,046	...	167,658	15,495	154,163	...
1875-9..	207,017	...	122,840	9,683	113,157	...
1880-4..	232,781	...	123,863	20,106	103,557	...
1885-9..	236,131	...	106,632	16,416	90,216	...
1890.....	275,293	...	119,150	17,927	101,223	...
1891.....	295,087	...	136,849	23,182	113,667	...

The most that can be said of our trade in this region is that it is stationary, with a tendency to decrease in volume and value.

THE COURSE OF BRITISH TRADE.

13. THE CHANNEL ISLANDS.—These islands comprise Jersey, Guernsey, Alderney, Sark, and Herm, the total area being about 75 English square miles. The total population in 1891 was 92,272 persons. The total trade of these islands is not separately given, but it is large in proportion to size and population.

(b) *Total Value of Trade between the Channel Islands and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from the Channel Islands.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom into the Channel Islands.	Total Exports of Foreign and Colonial Produce to the Channel Islands.	Total Exports of British and Irish Goods, &c., to the Channel Islands.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	330,121	0·2	618,318	137,979	480,339	0·4
1855-9..	361,934	0·2	685,934	152,982	532,952	0·3
1860-4..	693,200	0·2	977,766	166,303	811,463	0·5
1865-9..	418,214	0·1	710,091	140,157	569,933	0·4
1870-4..	556,114	0·1	919,270	161,669	757,602	0·3
1875-9..	714,335	0·1	766,691	183,404	583,287	0·3
1880-4..	818,063	0·1	803,458	207,240	596,418	0·3
1885-9..	918,301	0·2	804,015	213,627	590,406	0·3
1890.....	958,175	...	919,690	192,905	726,785	...
1891.....	1,201,486	...	974,912	215,487	759,425	...

Considering the size and population of the Channel Islands the trade with this country is very good, but it is incapable of much expansion.

14. MALTA AND GOZO.—(a) The total area of the islands of Malta and Gozo is given as 119 English square miles, the population being 165,662 persons, exclusive of the military population stationed there

THE COURSE OF BRITISH TRADE.

The total imports in 1890 amounted to £778,573, and the exports to £57,482, exclusive of imports and exports in transit, which amounted to £22,900,748 imports, and £22,106,585 exports.

(b) *Total Value of Trade between Malta and Gozo and the United Kingdom.*

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Malta.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom to Malta.	Exports of Foreign and Colonial Produce, &c., to Malta.	Total Exports of British and Irish Goods, &c., to Malta.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	303,278	0·2	472,318	59,033	413,285	0·4
1855-9..	166,427	...	612,349	75,821	536,529	0·4
1860-4..	147,244	...	708,567	93,240	615,327	0·4
1865-9..	100,503	...	683,022	120,269	562,753	0·3
1870-4..	210,381	...	1,025,040	151,096	873,944	0·3
1875-9..	219,122	...	1,046,250	178,575	867,875	0·3
1880-4..	170,802	...	1,129,397	177,171	952,226	0·4
1885-9..	116,012	...	1,009,311	119,163	890,148	0·3
1890.....	117,595	...	1,126,391	101,999	1,024,392	...
1891.....	122,135	...	1,019,467	123,454	896,013	...

The value of Malta is not to be measured merely by its actual trade, although that is considerable for its size and population compared with other places.

15. GIBRALTAR.—(a) The total area of Gibraltar is about two English square miles. The total population in 1890 was 18,527 persons, exclusive of the military population stationed there. Its trade is inconsiderable except with the United Kingdom, but the tonnage of vessels entering the port is large.

THE COURSE OF BRITISH TRADE.

(b) Total Value of Trade between Gibraltar and the United Kingdom.

PERIODS AND YEARS.	Aggregate Imports into the United Kingdom from Gibraltar.	Per Cent to Total British Trade.	Aggregate Exports from the United Kingdom to Gibraltar.	Exports of Foreign and Colonial Produce, &c., to Gibraltar.	Total Exports of British and Irish Goods, &c., to Gibraltar.	Per Cent to Total British Trade.
	£	%	£	£	£	%
1854.....	65,961	...	830,579	76,222	754,357	0·7
1855-9..	52,893	...	861,222	77,718	783,503	0·4
1860-4..	113,819	...	1,268,511	143,331	1,129,180	0·7
1865-9..	100,918	...	991,095	89,750	901,338	0·6
1870-4..	83,587	...	1,155,782	81,530	1,074,252	0·5
1875-9..	60,515	...	954,435	85,174	869,462	0·4
1880-4..	32,489	...	811,706	80,589	730,117	0·3
1885-9..	37,882	...	795,666	94,784	700,882	0·3
1890.....	49,898	...	896,087	101,120	794,967	...
1891.....	48,400	...	800,923	99,530	701,393	...

The above figures show that, with an increasing population, our exports to Gibraltar scarcely maintain the level of 1854, while the imports from Gibraltar decrease considerably; the latter was to be expected.

REVIEW.

THE foregoing tables relating to the colonies and British possessions show that, while the trade has increased during the last thirty-eight years, the proportion of imports from the colonies compared with those from foreign countries have only increased from 22·4 per cent to 22·9 per cent, notwithstanding their development during that period. The actual ratio of exports is less, for in 1854 the proportion was 35·1 per cent, while in the five years ending 1889 the proportion was only 35·0 per cent. The comparison is not in our favour, nor is it quite creditable to our colonies and possessions or to the British Government at home. The growth of some of the colonies during

THE COURSE OF BRITISH TRADE.

that period has been enormous; the intercommunication with them and the mother country is now so complete that we are within a few days' reach of a large proportion of our colonial possessions, while telegraphic communication brings them almost within earshot of us, and their progress, moreover, is mainly the result of British enterprise and of British wealth.

CONCLUSIONS.

THE series of tables presented in the preceding pages cover a period of nearly forty years, and they deal with almost every foreign country and British colony with which we trade. The figures herein given furnish material for an exact comparison of the relative progress of our trade with each country, and show the course and tendency of that trade. Speaking prospectively, they are not encouraging, notwithstanding the fact that our trade in the aggregate has enormously increased. The conclusions to which the figures seem to point are as follow:—

1. That in a great number of instances we have reached nearly the highest level of our possible trade with certain countries.
2. That several of the continental countries are now manufacturing goods which formerly they purchased from us, and that they are likely to do so still more in the future, to the disadvantage of our trade.
3. That high tariffs in several countries, and in some of our own colonies, operate adversely to British manufacturers and traders, and thus place us at a disadvantage in competing and exporting.
4. That these tariffs tend rather to impoverish the countries which impose them, while inflicting hardship upon British traders.
5. That these tariffs are often a fiscal necessity in the countries that impose them rather than being a competing necessity for the protection of the home industries of those countries.
6. That they are the result of a too lavish expenditure, either for warlike purposes or by reason of the expensiveness of government.
7. That the effects of the tariffs, and of costly government combined, are to paralyse the trade of those countries and diminish their purchasing power from abroad, chiefly from the United Kingdom.
8. That costly government and debt are operating similarly in our colonies, to the injury of their own internal trade and of mutual trade with the United Kingdom.
9. That the British trader may look forward confidently to a greater development of trade with the United States, and with the South American States, than with any other part of the world, at least in the immediate future.

THE COURSE OF BRITISH TRADE.

10. That India, under proper administrative conditions, may become one of the best customers for British manufactures, because of her enormous population, her vast area, and her capacity for almost infinite development.

11. That while our trade with, and especially our exports of British and Irish manufactures to, the United States, France, Germany, Belgium, Holland, Italy, Sweden and Norway, and other competing countries does not largely increase in volume and value, yet it forms such a very large proportion of our total trade that the imposition of any fiscal or restrictive measures which may have the effect of diminishing that trade would be disastrous to the United Kingdom, in proportion to the extent and effectiveness of such fiscal or restrictive measures.

12. That while it is the duty of the home Government, and of colonial Governments in colonies where they have the right to impose tariffs or restrictions upon the importation of goods into such colonies, to effect any arrangement for the mutual advantage of the mother country and her colonies and dependencies, yet any arrangement which would be retaliatory upon foreign States or upon the colonies, in which adverse tariffs exist, would operate to the disadvantage of British commerce and trade, and might prove injurious even to those colonies which joined in such mutual arrangement.

13. That the United Kingdom, whilst adversely affected by fiscal duties and tariffs in foreign countries and in some of the colonies, maintains her supremacy as a manufacturing country over all the States of the world. Her imports are mainly food supplies, drinks of various kinds, raw material for manufacturing purposes, and goods partly raw and partly manufactured, only a comparatively small proportion being manufactured goods in competition with home manufactures. Her exports, on the contrary, are mainly manufactures, and those manufactures are largely exported to so-called competing countries.

14. That Britain's supremacy is largely due to the growth and expansion of our mercantile marine, and especially of steam shipping, in the bottoms of which the carrying trade of the world is chiefly carried on. Our industrial population contribute to that supremacy by their skill, application, and capacity for work, and our manufacturers by the enterprise, capital, and labour-saving appliances which have built up our trade, developed our commerce, and made us the envy of all the nations of the world.

THE ORIGIN AND
ART OF



GROWTH OF THE
PRINTING.

BY HENRY SLATTER, J.P.

“Ars Typographica Nutrix est Animi.”

A LARGE number of learned treatises and more elaborate works have been devoted to tracing the origin of the art which we now regard as indispensable, not only to our educational advancement, but to the daily necessities of our business, comfort, or recreation. But notwithstanding all the researches of historians, antiquarians, and other literary men, a thick veil of obscurity rests on the origin of the art, and speculation has a wide field to enter upon in regard to it.

It appears probable that as early in the history of mankind as language was employed some method of recording the transactions of the time would be adopted, but what this was can never be ascertained. Macaulay, in his “Lays of Ancient Rome,” assumes that the history of the principal events connected with that great empire were passed from one generation of bards or minstrels to another, and it seems not improbable that some such process has been carried on in all ages from the earliest period.

In the ruins of Babylon bricks are found containing various devices which appear to have reference to historical events connected with that great city or to meteorological matters, but these have baffled the efforts of the most skilful oriental scholars to interpret them. Clay mixed with reeds was the material on which the designs found on these bricks were painted, and this appears to have been burned in by the action of the sun or by fire. Some remarkable specimens of work of this kind are still preserved, and one is to be found in the library of Trinity College, Cambridge. It is about seven inches high, shaped like a wine cask, and is covered with minute inscriptions arranged vertically, and much similar in the form of the characters to that found on the bricks, and has all the appearance of being intended as a record of some events which it was desired to commemorate.

Greek and Roman historians state that Cadmus, a Phœnician, about 1,500 years before Christ, built the city of Thebes, and was the

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

first to teach the Greeks the use of alphabetical symbols. Mr. Hansard, in his "Typographia," comments upon this, and says that "Cadmus was contemporary with Moses, and the time of his migration into Greece, making a little allowance for the discrepancies of chronologers, corresponds as near as need be to the time when the Israelites came into possession of the Promised Land. Now Moses, we are fully assured, had been qualified to write the Commandments of God at Sinai, and it is but reasonable to suppose that an art so valuable as writing would, when once learnt, most rapidly circulate among the most learned of the Hebrews. The inference, therefore, from these premises is that before he left Asia Cadmus had by intercourse with the Hebrew people learnt the use of letters, and when he emigrated to Greece he carried the art with him, in which country it was unknown till he taught it."

There is evidence that the Romans knew the value of an engraved stamp as a means of making an inscription. This has been found on one such relic, a ring formerly belonging to the Duke of Richmond, now in the British Museum, and which is so constructed as to be obviously intended for the purpose of being used as a stamp, and so save the trouble of writing.

It is by no means certain when or where the art of wood engraving, which had so much to do with the subsequent development of printing, was invented; but many authorities are inclined to ascribe it to that ancient people the Chinese. Their vocabulary is an almost endless one, and is said to consist of eighty thousand words, each word represented by a distinct character, and it would therefore be impracticable to print their books with movable types. Each page is engraved separately. In printing they do not use a press, but the paper is laid on the block and printed by rubbing a brush over it, and it is stated that the operation can be very rapidly performed. So far as Europe is concerned, wood engraving was introduced in the thirteenth century in those parts of Italy which border on the Gulf of Venice, and authorities differ as to whom the credit is due, but it is certain that Count di Cunio and his twin sister executed work of this kind for Pope Honorus IV. about the year 1285. Later it appears the art was applied in France to printing playing cards, and in October, 1441, there is authentic evidence that it was used for the same purpose in Venice. A few years later Maso Finiguerra, a goldsmith and engraver, of Florence, who did some remarkably beautiful work in the latter capacity, applied a kind of stereotyping apparatus in order to test the perfection of his work, and from this took on paper prints of his engravings. Some of these are yet in existence. Albert Durer, one of the greatest artists of his age or any other, at once painter, engraver, sculptor, architect, and mathematician, was born at Nuremburg in 1471, and produced

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

some of the most remarkable engravings on wood that had ever been seen. His series of cuts of the Apocalypse created an immense sensation as they were published, and he was deservedly classed as the greatest master of the German school. Holbein, a contemporary of Durer, was hardly less eminent in the same department.

The mode of multiplying copies of drawings by wood engraving having now become fully established, it not unnaturally followed that attention was drawn to the application of the art to the printing of books. This at first was done by engraving the whole of each page on a wood block and then printing from it. Mr. Hansard gives the following dates as illustrating the progress of the art in this matter :—

	Year.
Printing from blocks was invented about	1422
Printing from letters cut separately in wood.....	1438
Printing from letters cut separately in metal.....	1450
Printing from letters cast in moulds.....	1456

We must now come to what was really the most important step yet made in the progress of the art to its present state of high development—the advent of John Gutenberg, of Mentz. He was born early in the fifteenth century, and settled at Strasbourg about the year 1424, where he entered into partnership with Andrew Dritzchen and two others, binding himself to disclose to them some important secrets by which they should make their fortunes. Dritzchen died, and Gutenberg sent to his brother asking that the workshop should be locked, and no one permitted to enter, lest the secret should be discovered and the “formes” stolen; but the message was too late, as the apprehended mischief had been done and the formes taken away. Nicholas Dritzchen entered an action to get his brother’s share in the business, with the result that the partnership was dissolved. Gutenberg’s servant, in the course of the action, stated that his master was the first to print with movable types, and that on the death of his former partner he had ordered the formes to be broken up and the types dispersed, lest anyone should discover the secret.

Gutenberg had in this enterprise lost all his money, and returned in 1445 to his native city of Mentz, where he entered into partnership with a wealthy citizen, John Fust, and a new printing office was established. Here the celebrated Latin Bible was printed from large cut metal types, but the expense was greater than had been anticipated, and Fust instituted a suit against Gutenberg, and was successful in compelling him to pay a large sum. A dissolution naturally resulted, and Fust retained the plant, taking an enterprising and ingenious young man, Peter Schœffer, into partnership. It should be stated that Haarlem disputes with Mentz the honour of

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

being the cradle of printing, and claims for Coster the distinction of being the first one to invent movable types. A fierce controversy has raged on this matter, but the weight of evidence seems to be decidedly in favour of Gutenberg. In co-operation with Fust there can be little question that he produced metal types, and that these were afterwards considerably improved by Schœffer.

The art having been established in Germany soon spread to other parts of the Continent, but we are less interested in this than in tracing its rise and development in the United Kingdom. Some controversy has arisen as to who is entitled to the honour of having been the first English printer, and up to a certain period it was an accepted tradition or fact that for this we were indebted to William Caxton, a mercer, of London, who had spent many years in Holland and Germany, and had there acquired the "art and mystery" (as it used to be called in old indentures) of printing. The theory was placed in doubt by the discovery of a book said to have been printed at Oxford some years before Caxton commenced his operations at Westminster. What is called a "Record" of this publication was found after the Restoration in the Register of the See of Canterbury. It sets forth that King Henry VI., hearing of the progress of printing on the Continent, desired to see it introduced into his dominions, and for that purpose despatched his Master of the Robes, who took to his assistance William Caxton, a man of abilities and knowledge of the country (Flanders), and that these two found means to bribe and induce Frederick Corselis, who was then working at Haarlem with one John Gutenberg, who had invented the art, to come to England. Corselis was then sent down under guard to Oxford, and printed the book ascribed to him, "*Exposicio Sancti Jerome*," &c., but without any imprint attached. This, if true, would of course make Corselis the first printer in England, and deprive Caxton of that glory; but there are many reasons for believing the "Record" to be a forgery, and this view is held by most of those who are recognised as authorities on the matter. First, the year when it is asserted the king sent his emissaries to bring home some printers was one in which he was deeply engaged in a civil war, and the book which Corselis is said to have printed was not published for ten years after. Secondly, while Caxton published an account of his principal transactions up to the end of Henry the Sixth's reign, he makes no mention of an incident in which he is alleged to have played so important a part, but he does refer to the invention and beginning of printing in the city of Mentz. A third point is that Caxton remained abroad for twelve years after the supposed transaction, and that he probably learnt what he knew of printing at Cologne, where he resided and where books were printed. The Dutch writers, too, while making strong claims in respect to Haarlem, are silent about

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

Corselis having been brought from that city to England. The Black Book, or Register of the Garter, published in the thirty-fifth year of King Henry VI. (1447), states that in this year the art of printing books first began at Mentz, a famous city of Germany. All the circumstances, therefore, seem to point to the conclusion that Caxton acquired the art in Germany, and was the first to introduce it to England.

Apart from the evidence already adduced, there is abundant proof that it was not till after the Restoration that Caxton's claim to be regarded as the first English printer was called into question. Up to that period all the authorities, literary and historical, ascribed the honour to him. Stowe, in his "Survey of London," speaking of the thirty-seventh year of the reign of Henry VI. (1458), says: "The noble science of printing was about this time founded at Mayence by John Gutenberg, knight; and William Caxton, of London, mercer, brought it into England about the year 1471, and practised the same in the Abbey of Westminster." Other historians of the same time corroborate this statement. Newcourt says that "the first press was set up in St. Ann's Chapel, near which the Lady Margaret, mother of King Henry VII., erected an almshouse for poor women which was called the Eleemosinary, or Almonry, now corrupted to Ambry." The same authority states that it was the Abbot of Westminster, the first patron of Caxton, who set up the printing press in this building; but there seems to be considerable doubt on this point, and Caxton in his printed works does not give the precise place from which they were issued, though it is certain it was within the city of Westminster. The tradition that the first English printing was done in a chapel is carefully preserved to this day among members of the craft, and the term "chapel" is applied to the association of men in all large or even moderately-sized printing offices, or "works," as it is the modern fashion to call them. The chairman of the workmen is the "father of the chapel," and the secretary the "clerk." The ordinary business of the chapel is to look after the interests of the companionship, and when properly conducted the institution is a very useful one in preventing friction with employers or their representatives in the persons of managers and overseers. But they have not always confined themselves to functions of this order, and have in times gone by inflicted fines for the most trivial offences, and adopted regulations of the most absurd character. To-day they are in the main applied to their proper and legitimate purposes.

To return to Caxton, the first book printed by him that has any date is the "Game of Chess," issued on the last day of March, 1471, but whether it was printed in England or at Cologne, where Caxton was known to have resided, is uncertain. The same uncertainty

prevails about his first book printed in English, "The Recuyell of the Historyes of Troy," though this also was probably printed at Cologne. Of Caxton's typographical labours there is no complete account, nor any precise record of the date when he commenced them in England. It is known, however, that he practised the art in Westminster from 1478 to 1492. He died in 1494, and was buried in that city. Before his death three other printing presses were established in England, one in London, one at Oxford, and one at St. Albans.

Caxton's first performances in the art would be considered by printers of the present day rude and barbarous. Mr. Lewis says "he used a letter resembling the handwriting then in use. His *d* at the end of a word is very singular. He used the characteristics which we find in English manuscripts before the Conquest. His letter was peculiar and easily known, being a mixture of Secretary and Gothic as to shape, and sometimes of great primer as to size." Most of his corrections were made in his books by red ink after they were printed, and the initial letters were inserted by an artist called an "illuminor." Caxton appears never to have been married, but all through his life to have been a man of good conduct, and firmly attached to the church of his time.

Among other printers that Caxton is believed to have brought with him from Germany to England were some that afterwards became eminent in the art. Among these was Wynken de Worde, a native of Lorraine, who continued with Caxton until the death of the latter, and finished some volumes that were left uncompleted by him. He remained in Caxton's house and continued the trade for six years, and in the reign of Henry VII. had the distinction of printing the Acts of Parliament with the king's arms upon them. He vastly improved upon the work of his master, both with regard to the character of his types (and it must be remembered that at this time every printer was his own typefounder) and for the excellence of his presswork. As was customary at this time, and for some generations afterwards, printers, like other tradesmen, gave their places of business a distinctive sign, and de Worde called an establishment that he afterwards opened in St. Bride's parish by the name of "The Sun." The locality is still one of the most famous centres in England or any other country for the amount of printing done within its precincts.

Another of Caxton's pupils was Richard Pinson, and he was in such high esteem at Court that he obtained a patent to call himself the King's Printer. He was succeeded on his decease by Thomas Berthelet in this position. Many others followed in turn, but there is not space here to give even a catalogue of their names. Enough to say that under their auspices the art made steady and satisfactory

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

progress, though it was not unaccompanied with risk to those who practised it, as kings and prelates looked with a suspicious eye upon books being printed in the vulgar tongue.

The Stationers' Company, which formed rather an important body in the fifteenth and sixteenth centuries, was instituted as a guild in 1403. Their first charter was granted to them by Philip and Mary in 1556, and the preamble to it is interesting reading at the present day. It sets forth that "We, perceiving that several seditious and heretical books both in prose and verse are daily published, stamped, and printed by divers scandalous, heretical, and schismatical persons, not only exciting our subjects and liegemen to sedition and disobedience against us, our crown and dignity, but also to the renewal and propagation of very great and detestable heresies against the faith and sound doctrines of Holy Mother the Church, and being willing to provide a proper remedy in this case." The charter then proceeds to appoint the master and wardens, and sets forth the power they have. First, the provisions for the holding and maintenance of their estates and property, then very considerable, but now much more so. After this they are invested with power which practically gave them control over all the printing in London. The master, keeper, or wardens had power to visit and search any house, shop, or place where any books were printed or sold, and to seize and destroy them if there was anything in them contrary to any statute, act, or proclamation made or *to be made*. Any printer, bookseller, or other person resisting or obstructing the master or wardens in the exercise of these functions could be sent to gaol by the master or either of his wardens for three months, and fined one hundred shillings, half of which would go to the Stationers' Company and the other half to the Crown. Queen Elizabeth ratified and confirmed this charter, but Charles II., with the desire of having the power of removing the officers of the company, introduced new clauses enabling him to do so. These were repealed in the second year of William and Mary (1690), and the original charter of Philip and Mary confirmed. It is not recorded that the company ever made much use of the extraordinary powers entrusted to them. Perhaps they felt it would be dangerous to do so, and were too intelligent to incur any risk. They would have been regarded as unworthy representatives of the trade if they had attempted it.

In June of the same year that the royal charter was granted to the Stationers' Company, the Star Chamber issued an ordinance in terms nearly identical to those employed in the charter, and granting to the company similar authority. But the Lords of the Star Chamber did not rely solely upon the Stationers' Company for carrying out their infamous decrees, but had plenty of other agencies

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

for the same work. Presses were allowed only in London and one each in the universities of Oxford and Cambridge, and the conditions upon which the trade could be carried on were of a most intolerable character. The evident intention was to stop printing altogether, or, if this could not be attained, to limit its operations as much as possible. The restriction as to the number of apprentices proves this, if proof were wanting. The master of the Stationers' Company was allowed three, his wardens two each, and other members of the livery one each, while Oxford and Cambridge were limited to one each *at the most*.

The difficulties under which the trade was carried on about this period may be illustrated by the case of Hugh Singleton, who in 1581 printed a book with the title of "A Gaping Gulph to Swallow up England by a French Marriage," &c. The author was John Stubbes, of Lincoln's Inn, and the publisher William Page. All three were apprehended, and, under a law passed in the reign of Philip and Mary against the authors of seditious writings, were sentenced to lose their right hand. This was carried out in the cases of the author and publisher, but the printer had sufficient interest to get a remission of his sentence, and lived to carry on his business at the sign of the "Golden Tun," Creed Lane. Even in the present century some remarkable prosecutions have taken place, which prove how long and stubborn has been the fight to secure anything like freedom for authors and journalists. In 1810 Cobbett, with his customary fearlessness, wrote an article in his *Political Register* against the employment of foreign mercenaries and upon the flogging of sons and servants of English farmers while in the militia. For this the author, printer, news publisher, and bookseller were all prosecuted. The two former were sentenced to three months' imprisonment and the latter to two months', and all to find sureties for good behaviour. A curious feature was that though Cobbett admitted the authorship, and justified the article, the printer was called upon to prove that he had written it.

The title of king's printer was first given to Christopher Barker and his son Robert, who had a patent granted them by Queen Elizabeth, which is a very voluminous document in Latin. The patent was continued by Queen Elizabeth, and was held by Robert Barker, a great-grandson of the first-named Christopher. The royal favour, however, does not appear to have been of much advantage to him, as he spent the last ten years of his life in the Queen's Bench prison, and died there. The patent was continued through several generations to various printers, and by George III. was granted to Messrs. Reeves, Eyre, and Strahan. The second of these names is still in the firm which performs the printing for Her Majesty's stationery office.

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

Reference has so far only been made to English printers, but it must not be supposed that Scotland would long lag behind in the development of the art. It is believed to have been introduced into that country by priests who fled from the low countries to avoid the persecutions they were subjected to there. No book has been found of an earlier date than 1500. In 1509 a breviary for the Church of Aberdeen was printed at Edinburgh, and a patent granted by King James IV. of Scotland makes it clear that a printing press was at work in the Scottish capital in 1507. Two centuries later the art had made much progress, and in Thomas Ruddiman Scotland not only possessed an eminent scholar, but a printer who produced work of great excellence. The brothers Foulis, who devoted their attention principally to the production of classical books, a few years later issued many works of remarkable merit, both with regard to the books themselves and their admirable printing. They went to great expense in their determination to produce correct representations of the arts of Greece and Rome, and, as often happens in enterprises of this kind, they did not find the business a lucrative one. From their time forward Scotland has always been in the front rank of printers, and in their bookwork more especially they have no superiors wherever the English tongue is employed. There is, perhaps, no city in the world where so large a proportion of the inhabitants are engaged in printing and its related trades as in Edinburgh, and though several of the famous publishers of that city have now London houses, a large proportion of their books are still printed in the Scottish capital.

Ireland was far behind her sister countries in the introduction of the art, many of her authors sending their work to be printed abroad. In a letter written in 1774 it is stated that the Common Prayer Book was printed by Humphrey Powell in Dublin in 1551; but the Trinity College library contains only one printed so early as 1633, and even as late as 1700 most of the books written by Irishmen were sent to London to be printed. The art has advanced rapidly in the present century, but though there is much admirable work executed in Dublin and Belfast, Irishmen cannot claim any great distinction as printers.

One of the most eminent and remarkable printers of the eighteenth century was John Baskerville, whose work was conducted in Birmingham. He was a native of a Worcestershire village, and in 1726 kept a school in the Midland metropolis. A few years later he abandoned this profession and entered into the japanning business, in which he was so successful that he amassed considerable property. His leaning towards letters induced him to turn his attention to printing. It is stated of him in Chalmers' Biographical Dictionary

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

that "he spent many years in the uncertain pursuit, and sank £600 before he could produce one letter to please himself, and some thousands before the shallow stream of profit began to flow. At length the productions of his press grew into esteem. He died in 1785." His types were afterwards purchased by a literary society in Paris. They were of a far higher order than most of those at that time in use by printers. His letters are said to have been of a singularly slender and delicate form, and his italic was unrivalled for its elegance, freedom, and symmetry. The paper and ink which he used were also novel at that time, the former being mostly of Dutch manufacture, and the latter a "peculiarly soft lustre bordering upon purple." The productions of his press are still highly valued by collectors, and many of the printers of the present day, with all their improved machinery and appliances, would have good reason to be proud of the splendid work which Baskerville executed under great disadvantages.

Mr. William Bowyer, who is described by Mr. Hansard as "the most learned and distinguished printer of modern times," was the predecessor of Baskerville by a few years. He was educated at Cambridge, and soon after joined his father in the printing trade, in which his university training was of much use to him. For about half a century he was at the head of his profession as the printer of books for learned and scientific societies. Names still familiar to the trade are about this time connected with its history—Strahan, Spottiswoode, and Hansard—but it is impossible to dwell upon these or their successors who have advanced the art to the state we find it in at the present day. To this reference will be made on another page.

The four principal factors in regard to printing are paper, ink, type, and press or machine. With regard to the former, Mr. Hansard, in his "Typographia," says:—

The ancients, as substitutes for paper, had recourse successively to palm-tree leaves; to table books, of wax, ivory, or lead; to linen and cotton cloths, to the intestines or skins of different animals, and to the inner bark of plants. In some places and ages they have even written on the skin of fishes, on the intestines of serpents, and in others on the backs of tortoises. There are but few plants but have at some time been used for paper or books, and hence the several terms biblos, codex, liber, folium, tabula, &c., which express the different parts upon which they were written; and though in Europe all these have disappeared upon the introduction of papyrus or parchment, yet in some other countries the use of them remains to this day. In Ceylon, for instance, they write on the leaves of the calipot; and the Brahmin MSS. in the Telugu language, sent from Fort St. George to Oxford, was written on the leaves of plants.

It appears that the Egyptian papyrus was the first material from which paper was made, though no exact date can be fixed for it. The paper was made from the inner fibres of the papyrus or biblos,

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

bulrush growing in the marshes of the Nile. At the present day a number of different substances are used in the manufacture of paper, but the chief one is rags, and some remarkably fine surfaces are obtained at the different mills spread over the country. A large proportion of "printings" are produced in Lancashire, but the finer qualities require purer air and clearer water than are commonly to be found here. At one time, and that not very remote, it was considered indispensable that all paper should be slightly wet before it could be used by the printer, but improvements both in the making of paper and the manufacture of ink have to a large extent rendered this unnecessary; and where it is still required, as in the case of newspapers, mechanical contrivances secure uniformity of lamping, which is of great value to the printer. The competition in the trade is very severe, and our German cousins enter into it very successfully in some classes of paper. The ink used by printers was for a long time of a very inferior character, and Baskerville is credited with being the first to note this, to call attention to it, and to make an improved article. It will be readily understood that it differs widely from that ordinarily used for writing purposes. It is composed of varnish and some colouring matter. In "Practical Printing," by Mr. John Southward, its essential qualities are thus described:—

Printing ink must possess many peculiar properties. It must be of a mutable character—that is, must change from the soft adhesive state in which it is applied to the type to that of a perfectly hard and dry substance after being deposited or transferred to the paper. This change of condition must have a certain rate of progress, and be to some extent under control.

The ingredients of ordinary black printing ink are varnish (generally made from linseed oil and resin, and occasionally soap), lampblack, with an addition of indigo or Prussian blue. Until the present century, and for some time after its commencement, the ink was applied to the type or formes by means of "balls," which were very much in the shape of a stonemason's mallet. They were made of the skins of sheep, or pelts, in the state when the hair has been taken off by the lime process, and after a special preparation were fitted for this purpose. They have long been superseded by the rollers at present in use. These consist of a core of wood, which is covered by a composition of glue and treacle, or by some patent mixture in which indiarubber sometimes forms a part. The making of these rollers is generally a special business, though many large firms do their own casting.

There can be no doubt that types were first made of wood, that afterwards metal of various kinds was employed, and that it was by a very slow rate of progress that the present state of perfection was reached. The metals generally used are lead,

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

antimony, and tin, though some typefounders use other materials, and do not care to let it be known what they are. Other metals have at times been employed, and even glass has been used for the purpose, but without any great success. Mr. Southward says:—

The essential qualities of a good type metal are (*a*) hardness, (*b*) toughness, (*c*) capability to take a fine and clean-cut impression from the mould, (*d*) complete homogeneousness with an absence of soft parts, (*e*) fusibility at a temperature not higher than the mould will bear.

The first step in typefounding is the cutting of the letters on a punch, from which the mould is made; into this the molten metal is poured, and the casting complete. Types must naturally be uniform in depth, otherwise no equal surface could be obtained or proper impression secured from them. In the United Kingdom there are several eminent typefounders, among them Caslon, Figgins, and Reed (London), Miller and Richards (Edinburgh), and Blake and Stephenson (Sheffield). Germany has made great advances in the art, and produces some very fine work in elaborate and artistic borders and ornate initial letters.

The department in which the greatest and most wonderful progress has been made in regard to printing is in the machinery, which has almost entirely superseded the old hand press. Most persons are familiar with the kind of press that Caxton employed from the well-known print which is assumed to show him at work in Westminster Abbey. For many years not much change was made from the primitive character of this first press, and even in the present generation specimens of the old wooden press were to be found at work which required the pressman to make three “pulls” or movements before he could print a sheet of any decent dimensions. What a contrast to the endless rolls of paper and rapid revolutions of the Victory and Hoe machines of to-day!

Copper-plate printing is not now much resorted to, having been to a great extent superseded by lithography. Still for fine work the former is sometimes employed. In this process the plate is heated, and ink rolled over it till the engraved lines have been filled. Then the face of the plate is wiped clean, care being taken that the ink remains in the engraved lines, so that when a moistened sheet of paper is put on it the pressure of a cylinder of a rolling press produces the desired impression.

In lithography the surface used is a stone instead of a plate. The design is put upon it by a greasy ink. The stone requires to be of peculiar smoothness and fineness. These stones are mostly obtained from quarries in Bavaria. Attempts have been made to find suitable stone in the United Kingdom, but hitherto without success. The lines marked on the stone adhere to and dry upon its surface, and an acid is applied which hardens the ink and covers the surface

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

where it is unprotected. The stone is then damped, the water being absorbed by the unprotected surface; the ink being then applied, the moistened surface repels it, while the lines with the greasy ink on them attract and retain it, and the desired impression is easily secured. Lithography has been very extensively cultivated in Germany, and not only are the cheap prints which are so numerous in our shop windows mostly produced there, but some highly artistic and beautiful colour work also emanates from German printing works.

The introduction of machinery was not much liked by the pressmen of the day, and futile attempts were made to frustrate its working. In some cases the men would have nothing to do with them, and they were worked by mechanics, and so passed out of the hands of the printer to his loss and prejudice. Compositors may be expected to act in a more enlightened manner with regard to the numerous machines which have been introduced, and are still being invented and manufactured, to perform the work hitherto done by hand and composition. The advent of such machines is naturally not admired by the bulk of compositors, but there is no blind fear or unreasoning opposition to them, and the men appear determined to act wisely and try to keep the manipulation of the machines in their own hands.

As previously stated, there are a great number of machines invented, and hardly a week passes but some fresh one is announced, generally from America. The principal ones now in use are the Hattersley, Kastenbein's, Thorne, and the Linotype. To take them in their order, the Hattersley machine is worked by the compositor seated at a keyboard, much like a pianoforte. Each key represents a letter, which falls into a slide on the key being touched, and when enough letters are thus got together to make a line the manipulator puts in the necessary spaces to complete the length of line required. For a long time after the introduction of the Hattersley composing machine the distribution, or placing back of the types when done with, was performed by hand; but now, by an ingenious mechanical contrivance, they are placed in the galleys or trays from which they have to be drawn in the work of composition. The operation of the distributor is slower than that of the composing machine, but is very similar in its character.

The Kastenbein is much like the Hattersley in many of its characteristics. The machine was invented some years after that of the Hattersley, and is by no means in such extensive use. It is claimed that the Kastenbein has the advantage over the Hattersley that all the parts are metal, and that there is no elastic used. The distributor is similar to the composing machine if the latter were turned upside down.

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

The Thorne is an American invention, and its use has been extensively pushed in this country by a very active syndicate. It differs materially from either of those previously mentioned. It requires steam or other motive power to work it, and three operators are required—one at the keyboard, one to justify the lines, and a third (usually a youth) to keep the distributing cylinder fed. The principal features of the machine are two vertical cylinders containing about ninety grooves for the reception of type. The top cylinder revolves on its axis; the lower is fixed. The first-named receives the type for distribution, which is then dropped into the latter for composition. Both operations of composition and distribution can be conducted at the same time or separately as desired. Special type is required for the machine, each letter having a nick or nicks appropriate to itself. This is an element of extra expense which is a drawback to the success of the machine.

The Linotype, like the Thorne, is an American invention, and is perhaps the most remarkable of the machines yet in use. It does not set up type, but makes type matrices, and afterwards casts each line as soon as the matrice is formed. By this means line after line is produced till a column or page is completed. The metal when used is then returned to the melting pot, and can be used again in the same manner. A novel and clever arrangement is made by which each line justifies itself—that is, puts the necessary width of space between each word so as to fill the line. The principal disadvantage of the machine is that each line is cast, and that if a single error occurs another matrice must be formed to have it recast. Compositors must become perfect before the machine can be a complete success.

There is some doubt as to the origin of what may be properly called newspapers. Certain writers trace it to the *Acta Diurna* of the Romans, but that record could have little in common with what we now understand by the term newspaper. In the war between Venice and Turkey, in 1563, the Venetians adopted the custom of communicating military and commercial news by means of written sheets, which were paid for by a coin called *gazetta*, and this was doubtless the origin of the term *gazette*, which for a long time was the most common name for newspapers.

In England, Lord Burghley, in the reign of Queen Elizabeth, is assigned the honour of being the first to order the printing of sheets containing public intelligence. The defeat of the Spanish Armada was an event of which the Queen and her ministers might justly feel proud, and the earliest of the printed sheets referred to gave details of that memorable event; though they are numbered in a manner to indicate that previous issues of a similar character had been printed, the nature of the type implies some doubt of

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

their authenticity. In the reign of James I. packets of news were published in the shape of pamphlets occasionally. In 1622 there appears to have been published a weekly paper under the title of the *News of the Present Week*, and this really seems to have been the first newspaper published in England. Coming to the time of Charles I., we find that many newspapers in the interest of the various parties were published. *Mercurius* was the favourite name, with an adjective to show what particular interest was represented. In 1662 the *Kingdom's Intelligencer* was commenced by Sir Roger L'Estrange, but was discontinued on the publication at Oxford (London being then afflicted by the Plague) of the *London Gazette*. A few years later (1680) L'Estrange commenced the *Observer*, and, acting in his capacity of licenser for the press, issued a proclamation for the suppression of unlicensed newsbooks and pamphlets of news which were endangering the peace of the kingdom. In the reign of Queen Anne the Londoners for the first time had a daily paper supplied them. It was called the *Daily Courant*. Seventeen others were published thrice a week and once twice. The origin of the newspaper stamp in Queen Anne's reign is thus described:—

Queen Anne, in one of her messages to Parliament, declared that by seditious papers and factious rumours designing men had been able to sink credit, and that the innocent had suffered.

Parliament took the matter up, and imposed a stamp duty of one halfpenny on each publication, and, small as the amount appears, it had the effect of stopping several papers and causing others to amalgamate. This effect was not lasting, and many of the papers afterwards recovered, and became successful enterprises. The stamp duty varied in succeeding reigns, and in that of William IV. reached fourpence on each newspaper printed. It was repealed with the other taxes on knowledge in 1855. The advertisement duty was first imposed in 1712, and has varied in amount. It was charged according to the number of lines, afterwards fixed at 3s. 6d. for each advertisement, and at the time of the repeal of the duty, in 1853, it stood at 1s. 6d. for each advertisement. The paper duty was imposed in 1694, and at the time it was taken off, in 1861, it was producing annually about £1,400,000.

The repeal of the three duties named was, as is well known, the result of a long and strenuous agitation, in which the names of Dr. John Watts, Mr. Milner Gibson, and others were conspicuous. They lived to see gigantic strides made in our journalistic literature, and a grateful posterity will ever hold them in remembrance for the work they did in enabling us to have a press of which we have all so much reason to be proud, and which has no rival in the world.

THE ORIGIN AND GROWTH OF THE ART OF PRINTING.

Co-operators will naturally take an interest in the workmen engaged in the trade, and it cannot be said that in all cases their lot is a satisfactory one. In some districts, notwithstanding the fact that to be a good printer a man must have a fair education, he is only paid about the same amount as the unskilled labourer. It is remarkable that some of the worst paid places are the old cathedral cities, in some of which it is still the custom to get premiums from charity schools or similar bodies when apprentices are taken. The boy would in many cases be better off if he paid a premium to keep away from the trade. The general rule is a seven years' apprenticeship, but the binding by indenture is not always insisted on. In regard to the trade organisations, they are numerous and varied. London has a society of compositors with about nine thousand members; the Metropolis has also a special society of machine minders, and another of pressmen. In the provinces most of the principal towns are connected with the Typographical Association which has about 11,000 members (Leeds, Dublin, and Cork being the most conspicuous exceptions). Scotland has a separate association of its own, with nearly three thousand members. In most of the towns where these societies exist the conditions of labour are better than in the towns where there are no organisations, and the relations between employers and employed are satisfactory, no serious rupture having occurred in recent years. In several of the large towns the employers have also organisations, more or less permanent, and when the representatives of each side meet the points in question are usually settled in an amicable manner. Outside arbitration is rarely called on, and in only one case within the recollection of the present writer has it been appealed to. Then a county court judge gave the men the advance asked for on conditions which they accepted and fulfilled. That this desirable state of things may long continue must be the earnest wish of everyone who estimates the value of the art, and the advantage it is capable of conferring upon mankind.

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

BY HENRY DYER, C.E., M.A., D.SC.

INTRODUCTORY.

THE majority of ordinary church-going people imagine that when the last verse of the Book of Malachi was penned the work of the prophets was ended and the race became extinct. They are very apt to consider the man who undertakes to speak of the future either as a fool or a knave, at least if he ventures beyond an interpretation of the Hebrew prophets. Possibly these terms have in many cases been deserved, but no age has been without its prophets, and the present age needs them more than any that has preceded it. We require not only scientific men discovering truth, and poets and artists idealising it, we want as well some voices to keep us in remembrance of those greatest, possibly undiscoverable, things which can neither be ignored nor forgotten. These may be the voices of priests, orators, statesmen, or of men in humble life, but the world must feel that they belong to sages whose messages, at once winged and mighty, are delivered with all the authority of great personalities. Few will be disposed to refuse the name of prophet, in this sense of the term, to Shakespeare and Milton, or, to come down to our own times, to Carlyle, Emerson, and Ruskin, men whose words are beginning to affect the thought and action of the world to a much greater extent than whole libraries of theological lore. But every man who is a sincere seeker after truth ought to be a prophet, possibly in a small way, but still sufficient to make the resultant action an appreciable quantity in the factors which influence the world. The Greek word *prophetes* means not a foreteller, but an out-teller, one who declares the will of a deity and interprets his oracles; and the real prophet of to-day is one who carefully studies the tendency of events and discerns the signs of the times. If gifted with higher powers he may have a divine and inspired foresight of what is going to happen, and lead the way, for it is the spirit of the age which makes a reformation; the reformer only brings to the surface the hidden force of change.

Ruskin, in one of his early works, has perhaps unconsciously set forth the special nature of his gift when he said*—

The more I think of it, I find this conclusion more impressed upon me, that the greatest thing a human soul ever does in this world is to *see* something, and tell what it *saw* in a plain way. Hundreds of people can talk for one who can think, but thousands can think for one who can see. To see clearly is poetry, prophecy, and religion all in one.

Possibly if Ruskin had been a scientific man he would have added "and science includes them all," for the true test of science is prevision or prediction. In physical science, even yet, it is not possible to go very far in this direction, and in sociology the problems are much more difficult. All that ordinary mortals can do is to make a shrewd guess, and this is all that I shall attempt at present, and even that will be restricted to very narrow limits, for I not only recognise my own inability to do more, but also the great difficulties of the problem even to the most gifted.

When, therefore, I speak of the future of society I do not propose to picture social conditions in the far-off cycles, for the practical details of these cannot be known before they are evolved through the action of the numberless factors which produce them. I will only try to indicate what in my opinion may be inaugurated in our own days, simply by carrying out a little more quickly and rationally than is being done at present some of the principles which are profoundly influencing social legislation and action, and to indicate aims which our children and grandchildren may see realised. Beyond that no mortal man should go if he wishes to have any influence as a social reformer or a politician, although for the good of his soul he may picture a higher ideal, for whatever may be said to the contrary, the ideal is the end which must be the object of life, and without it life is not worth living. The really practical men are the men who have an ideal, and are continually striving to attain it, taking care to consider the possibilities of the immediate future, and not the men who never see beyond their own selfish interests or the requirements of the hour. Practical men, so called, are the men who have brought society to its present pass, and the greatest want of the times is a new ideal of what really constitutes life, and of the possibilities of life. The idealists, or the dreamers as they have been called, have been the makers of epochs in the history of nations, for the ideals of one generation have become the concrete institutions of succeeding ones.

The framers of Utopias of all ages have made the mistake of laying their plans in the clouds, or at least of not connecting them with the existing conditions of things and showing how they were to be developed therefrom. My space will not allow me to enter

* "Modern Painters," vol. iii., chap. xvi., sec. 28.

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

to details, but I have no hesitation in saying that an intellectual and moral change, both within moderate and attainable limits, could bring about a very great change in a single generation. That change will be hastened by the development of machinery and its rational use, and it is to this aspect of the subject that I wish to direct special attention, although I do not undervalue the importance of the others. Bacon in his "New Atlantis" makes science the civiliser which binds man to man, and his leader to the love of God, and he founded his picture of society on that supposition. Our business is to bring that picture (in so far as our space will permit) up to date.

PROFESSIONS OF THE FUTURE.

THE learned professions of the past have been the Church, law, and medicine. In the society of the future these will take subordinate places to the profession of engineering, if indeed they do not entirely disappear as it advances. It is now being recognised, even by the clergy, that the use of going to church is to enable us to do without it, and when the time comes when every man and woman will be a minister of God, when every act will be a prayer, and every word will be to the praise and the glory of God, the clergy, as such, will have disappeared. The clerical profession, however, will certainly outlive those of law and medicine. One cannot imagine a renewed state of society in which a large body of lawyers will be necessary, as their existence would involve a contraction of ideas. Law will be so simplified, and men and women will in the society of the future allow all their actions to be guided by motives which will always aim at the welfare of the community, and not simply at the promotion of selfish interests, that any little differences that may arise will be settled by friendly conference rather than in the law courts. The only function of the lawyers will be to act as arbitrators, and see that justice is done, as More pictured in his "Utopia" nearly five hundred years ago.

The medical man of the future will not be simply a curer of diseases or a compounder of drugs, but will gradually be transformed to an officer of health, whose aim will be to prevent people from becoming sick. He will, in short, be a sanitary engineer, whose education has not been confined to the mere mechanical arrangements which we at present consider necessary, but he will add to that a thorough knowledge of the requirements of the human body under all conditions, from the cradle to the grave, while the care of the sick will be left chiefly to the ladies of the profession, all of whom will be paid by results, measured, however, not by the amount of physic they dispense, but by the absence of sickness among all classes of the community.

It is quite evident, therefore, that the chief profession of the future will be that of engineering, because ultimately it will include almost all the others. An engineer is not, as is generally supposed, simply a man who makes, mends, or minds engines, but one who sets his mental powers in action in order to discover or devise some means of succeeding in any difficult task he may have to perform, and thus the profession is wide enough to include all spheres of human activity. Apart, however, from the strictly etymological meaning, in its ordinary acceptation, the term "engineering" is beginning, even now, to have a very wide meaning, and instead of being looked upon as a single profession is considered a group of allied professions and trades. A few notes on its more important divisions will be of interest, at least to non-professional readers.

CIVIL ENGINEERING.

THE term civil engineering is now generally applied, although somewhat illogically, to such works as roads, railways, tramways, bridges, drainage and water supply, canals, rivers, harbours and docks, sanitary engineering, &c., but the term *civil* has lost its original meaning. It was originally applied to distinguish work which were not intended for military purposes, and now, of course, the field has extended much beyond those works enumerated above and, in fact, includes all ordinary engineering. The work of the civil engineer in the future will offer as great opportunities as it has done in the past, for, however great our achievements have been they are a mere introduction to what are likely to be. Nothing has been done so much to increase the conveniences and enjoyment of the human race as the improvement which has taken place in the means of locomotion. The stage coach is a pleasant method of travelling for short distances, and when the weather is good, and will no doubt be largely used in the future when pleasure is the main object; but for long journeys it is slow and expensive, and has now given place to the locomotive. The sailing ship has, to a large extent, been displaced by the more rapid steamship in the conveyance of passengers and goods; and it is probable that, at least for special purposes, the ærial machine will be preferred to both the locomotive and the steamer. The applications of electricity to means of locomotion are only beginning to be developed, and they open up a field of immense possibilities.

With improved motors and permanent ways, railway travelling will increase in speed to certainly over 100 miles an hour. The strength of the materials of construction will be very much increased and the weight of the carriages diminished, and they will be practically incombustible. The automatic and electric arrangements for signalling will be so complete that collisions will be

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

unknown and accidents very rare, while the cost will be very much reduced below what it is at present. It is not quite a dream to imagine the day when the railways will be paid for out of the imperial and local exchequers, and travelling to be as free on them as on the common roads. If the latter be right the former cannot be far wrong, if financial arrangements can be made which are in the interests of the whole community.

Not only on railroads will there be increased facilities for travel, but also on canals, common roads and tramways, and in the air there will be great developments of mechanical appliances. Bicycles, tricycles, omnibuses, and carriages in all their varieties, and driven chiefly by electricity, will be most extensively used, so that altogether in the society of the future there will be much freer and easier means of communication, and consequently a great improvement of social relations.

MECHANICAL ENGINEERING.

THERE can be little doubt that the department of mechanical engineering is the one which offers the greatest scope for ingenuity, and that the development of machines and mechanical appliances for the saving of labour, of prime movers of all kinds, for land, air, and sea, opens up a very wide field, of which it is impossible even to imagine the limits.

A knowledge of mechanical engineering supplies a basis for all the other departments in which tools and mechanical appliances are used, and a very little special experience fits a skilled mechanic for any position requiring a knowledge of machinery and the methods of using it. Not only does this apply to the various sections of engineering, but also to all trades and occupations. The successful civil engineer must know the construction and methods of using machines of all kinds; the electrical engineer must, in the first place, be a skilled mechanic; the naval architect must know a good deal about the numerous machines and appliances found in a modern steamship; the architect for buildings must be a great deal more than an artist; the mining engineer must be able, at least, to indicate clearly the nature of the appliances he requires; the chemist and the metallurgist must be able to apply the principles of their sciences to the practical purposes of manufacture. Managers of mills and factories who are skilled mechanics have a great advantage over those who have simply picked up a superficial knowledge of the machines they use, and even the ordinary workers will find it necessary to have a certain amount of training in the principles and practice of mechanics. In short, the workmen of the future will be skilled mechanics in the first place, and only special tradesmen in the second, and the difference of trade will not be so much in the

men as in the machines. In addition to the motors in which steam, water, or compressed air is employed as the working fluid, the other forces of nature will be utilised to the fullest degree. The neglected powers of the wind, the tides, and the sun will afford much scope for the ingenuity of the mechanical engineer.

In this part of the world the wind and the tides will be more available than the sun, and both of those will no doubt be largely utilised in the future. The great difficulty with them has hitherto been their intermittent action, but that is now being got over by converting the work done by them into electricity and storing it up for use as required. With us, the amount of available sun-energy is so small, comparatively speaking, and so uncertain that other sources of power are likely to receive more attention, although the energy poured down by the sun in a warm summer is very great. In hot climates, however, the possibilities of its utilisation are much greater, and may ultimately lead to a transference not only of industry, but also of population to those parts of the world which are within the torrid zone, which may thus come to have busy centres of industry and commerce.

ELECTRICAL ENGINEERING.

THE applications of electricity to mechanical engineering will probably be the most interesting department of applied science, and the most useful for domestic purposes and the smaller industries. We have chained the lightning, and it promises to be even a more generally useful servant than steam. Already we have made a good start with electric power transmission, electric railroading, electric lighting, electric welding, and electric reduction of metals. Many of the ordinary arts are being revolutionised by the same means, while the methods and conditions of commerce and industry have been entirely changed, and the world shrunk to very small dimensions by means of the electric telegraph.

Not only in the general arrangements of trade and commerce and social life are electric and other cognate appliances destined to play a most important part, but also in the details of counting-house work there are likely to be great changes and developments, for with improved telephones, phonographs, and typewriters, and with mechanical and electrical calculating machines, the routine duties of clerks, correspondents, and bookkeepers will be very much lightened and made much more efficient.

Probably the development in the use of the telephone is destined to work as great a change in the conditions of life as that of the telegraph has done in trade and industry. Even for these it seems that it will supersede the telegraph in many cases, for at the present time by means of very simple apparatus we have perfectly audib

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

speech to distances up to six hundred miles, and recent experiments promise even much better results. Before long the telephone will be used not simply for conversations, but also for the transmission of speeches, sermons, and plays, which will be listened to by audiences at great distances from the speakers. Music will be supplied from central halls, and led into the house like gas or water. The actual tones of the speakers may be preserved in the phonograph, or their words transmitted to an automatic typewriter or a printing machine, or to an apparatus which increases the sound and renders the words of the speakers audible to a large audience. The experiments of Mr. Tesla seem to offer great possibilities to the development of the applications of electricity to practical engineering, and hold out the hope, as he has put it, that we may be able "to hook our machinery to the machinery of nature;" and a well-known electrical engineer has said* :—

Should the application of Mr. Tesla's results ever fulfil the bold dreams of scientific imagination, we shall see a political and social change at least as important as that caused by the railway system or the electric telegraph. Most manual labour will become unnecessary, as unlimited power will be available at every man's hand. Engineering works will be able to be carried out on a far greater scale than has as yet been even contemplated, and doubtless a corresponding era of material prosperity will set in.

NAVAL ARCHITECTURE.

THE future development of the steamship depends on conditions about which it is impossible to say anything very definite. The materials of construction have been changed from wood to iron, and from that again to steel. We cannot foretell the possibilities of bronze, manganese, aluminium, and other metals and their compounds. The engines have developed from inverted Watt engines through a great variety of forms to multiple expansion engines of great complexity and considerable efficiency, but all these may be rendered useless by some other form of heat engine.

The ship of the future will, however, probably owe more to electricity than to steam or heat. The vast and complicated arrangement of engines and boilers will give way to a simple process of generating electricity direct from the fuel, which will not only supply the power needed for driving the ship but also for all the subsidiary purposes connected with its working. Cargoes will be loaded and unloaded, water pumped, air propelled or exhausted, light supplied and cooking done, and many other operations performed by means of electricity. The material of the hulls will be much stronger even than the best steel at present employed, and will probably be an alloy of several metals some of whose properties we are only beginning to discover, while the present

* J. E. H. Gordon. "Nineteenth Century," March, 1892, p. 402.

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

method of construction by riveting may probably give way to one of electro-deposition, by which either the whole structure or, at least, large parts of it are produced in one piece. It is evident, therefore, that the limits of the sizes and speeds of steamships in the future are to be determined by experience and commercial considerations rather than by abstract scientific speculations, or even by mathematical and physical calculations.

CHEMISTRY, MINING, AND METALLURGY.

THE resources of chemistry, mining, and metallurgy have supplied the materials which have made all our advances in the mechanical arts possible, and have utilised materials which were otherwise valueless. These resources will continue to be developed at an ever-increasing rate on account of our improved scientific knowledge while the applications of machinery will render the occupations connected with these departments healthier and safer, and be the means of shortening the length of the working day, so that greater opportunities may be afforded for social enjoyment, recreation, and improvement to those who are engaged in them.

WAR.

IT is a long time since Arago predicted that as a consequence of Watt's inventions the time would come "when the science of destruction shall decline before the arts of peace." A survey of the chief countries of the world would almost lead us to infer that that time is past; but a closer study shows us that war seems destined to obey the general law, that all institutions have a tendency to abolish themselves, for science has taken hold of it and is profoundly altering its conditions. The appliances of war, both by land and sea, are specimens of the highest developments of mechanical and chemical ingenuity, and seem destined to put an end to war by the terrible consequences which their use would involve. That tendency will continue to increase at a very rapid rate with the advances made in chemical and mechanical appliances, and when it becomes possible for a whole army to be destroyed by a few explosions, or even by a change in atmospheric conditions, the people of the world will begin to recognise the absurdity of large standing armies. Alongside the tendency caused by the applications of science to the materials of war there is another of possibly greater strength, that is the determination of the people that their lives and resources shall no longer be used as the counters by which ambitious rulers play their games, and the opinions expressed at the polling booths will hasten the day when men will beat their swords into ploughshares, and learn the art of war no more.

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

FACTORIES AND WORKSHOPS.

In the factories, workshops, and manufactories of the future every advantage will be taken of improved appliances to relieve the workers as far as possible from all drudgery and exhausting work, and to place them under proper sanitary conditions. Steam, air, water, and electricity will be applied in manifold ways for the performance of work, which at present shortens the lives of the labouring classes. Manual labour, which nowadays is in most cases little more than an irksome or brutalising penalty to those engaged upon it, was not so to the craftsmen of the Middle Ages who built cathedrals, singing as they built. By the aid of mechanical appliances a great deal of the penalty may be made to disappear, and human beings, instead of being turned into mere appendages to machines will become their masters, and insist on them being employed for the performance of drudgery and mechanical routine, and reserve the ennobling occupations for men and women.

PUBLIC AUTOMATIC APPLIANCES.

One department which promises a very wide field for the exercise of ingenuity and of mechanical skill is that of automatic appliances of all kinds for public and private convenience. At present these are confined to comparatively unimportant matters, but there can be little doubt that the same principle is destined to be applied to many things where its use is at present inconceivable. Other appliances, although not strictly automatic, will be set in motion or in position, not by individuals, but from centres, and will work through considerable areas. An illustration of these may be given in the arrangements for rainy weather. Instead of each one carrying an umbrella, as at present, there may be continuous waterproof coverings along the streets which will enclose the side walks and turn them into well-lighted and perfectly dry corridors. Indeed, it has been suggested that the age of individualism and that of co-operation was well characterised by the fact that in the former, when it rained, they put up separate umbrellas, while in the latter they will put up one umbrella over all the heads.

FOOD, CLOTHING, AND SHELTER.

The developments of mechanical and chemical science open up great possibilities in the production of food. Our agricultural and fishery resources are not at present employed to nearly their full extent, and much is wasted in their utilisation. Waste products of all kinds should be fully taken advantage of, while improved methods and appliances in cooking, and co-operative kitchens, would do much to reduce waste and bring plenty within the reach of all. In the future, not only will the use of gas be greatly extended for cooking

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

purposes, but it is possible that before long electric stoves will be largely used for the purposes connected with the preparation of food.

It does not require a very great stretch of the imagination to suppose that the resources of chemistry will be called in to produce food from inorganic substances or from vegetable fibres, and that the laboratory will to a large extent displace the plough. It is to be hoped, however, that the spade will always remain, and that the energy which will be saved from exhausting labour will be devoted to the cultivation of vegetables, fruits, and flowers, an occupation which might be made the most pleasurable imaginable, and which would fill up the intervals of work and recreation and render unnecessary many of the rather childish and unprofitable resorts to which people are at present driven to keep themselves in health.

In the manufacture of the materials of clothing and of textile materials generally there does not seem very much room for any great inventions, although no doubt there will be many improvements in design and in details, and garments will be made with a greater regard to beauty and utility and less to fashion than is the case at present. Machines have to a very large extent killed artistic handiwork in this department, but when life becomes more leisurely the artistic faculties of all classes will be developed, and the results no doubt will be seen in clothing which is more pleasing to the eye than much of that at present in use. It is, indeed, possible that in the future such processes as spinning, weaving, sewing, &c., may all be rendered unnecessary by some mechanical-chemical inventions which will enable materials to be produced of such a nature that they can be applied to a great variety of purposes by a slight variation in the process, and which will also admit of any desired amount of artistic application. Such an invention would thoroughly revolutionise all our factories of the future and all the conditions attached to them.

The dwelling-houses and the public institutions of the future offer a wide field for the application of mechanical appliances of all kinds. While retaining a great part of the family arrangements which at present exist, there will be a tendency to socialise in almost every direction. Public libraries, museums, and picture galleries will render large private collections unnecessary, associated cooking and heating arrangements will economise a large amount of fuel, mechanical elevators will save a great deal of labour, mechanical and electrical appliances will render servants almost unnecessary, and even rich people will be content with a few rooms instead of being burdened with immense establishments, as they will find the majority of their wants supplied in the socialised institutions. Building construction will be much improved both in methods and in materials, and there will be good arrangements for heating, cooling

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

nd ventilating. Very possibly the heating and ventilating will be accomplished by means of electricity; an electric motor will drive a ventilator, which will suck in the cool air. When warm air is wanted a current will be sent through a network of fine wire possessing a high resistance, and through this the air will be arranged to pass and thus become heated, and a movement of a commutator will be sufficient to change the character of the air supplied. In public buildings special attention will be paid to acoustics. Gas and electric light will make smoke in the atmosphere unknown, or, if produced, it will be carried off through long conduits to be consumed in properly arranged furnaces. Many of the menial occupations of the present day will be performed by specially designed pieces of apparatus worked by compressed air, water, or electricity. The maid-of-all-work of the future will not be composed of flesh and blood and animated by a rebellious spirit, but will be a docile machine.

The public places of entertainment will be well lighted, comfortably heated and ventilated, with numerous appliances of all kinds for convenience or recreation, and they will render what we at present call public-houses unnecessary, for we may rest assured that when men and women live under healthy conditions and have opportunities for recreation they will have no inclination to make beasts of themselves by drinking intoxicating liquors to excess.

APPLIANCES FOR THE PRESERVATION OF HEALTH.

In the developments of the industry of the future, the aim which will be kept in view will not simply be the turning out of cheap products, but the elevation of the workers and the preservation of the health of the community. The length of the working day will be inversely proportional to the disagreeableness of the work. The most improved sanitary appliances will be found in all dwelling-houses and public institutions. The supply of pure water will be abundant, and practically no limit will be placed on its use. Sewerage will be carried out in a most complete system, and all dangers from noxious gases will be avoided by the application of mechanical and chemical means. Public baths will be available in every quarter, and the air will be kept pure by all smoke being consumed and all noxious gases being rendered harmless. A very much larger proportion of the lives of the people will be spent in the open air, for every opportunity will be given for healthy recreation and enjoyment. In short, when it is clearly recognised that the world was made for man, and not simply for the manufacture of certain mechanical or chemical products, chiefly for the benefit of a limited section of the community, it will gradually dawn upon people that the object of life is to live, and that in order that this

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

may be done the resources of science and of mechanical appliances must be fully taken advantage of for the preservation of the health of the members of the community, and for adding to their means of enjoyment. The improved means of locomotion and for the performance of work, therefore, which the developments of science will place at the disposal of the society of the future will not be allowed to interfere with the exercise which is necessary for the health of the members of the community, who in this as in other matters relating to the use of machines will consider what is best when all the conditions are fairly taken into account, and not allow them to increase the already sufficiently high pressure at which they are living; that is to say, they will make the machines their servants, and not allow them to become their masters.

The subjects of the preceding speculations are such that volumes might be written on them. All that I have attempted to do is to give a brief outline of some of the possibilities of machinery and of science, which may be used for advancing the welfare of the people. The mechanical development of the nineteenth century was a very necessary step in the evolution of society. That of the twentieth will bring us still nearer to the conditions of social welfare of which prophets have foretold and poets have sung, and which are now almost within our grasp if we deliberately try to attain them. The triumphs of science and industry are the most powerful factors in the age, and we could not get rid of them even if we wished. They are essential not only for our individual but also for our national existence, for the struggle with nature is too severe to allow us to dispense with any of the achievements of the human race. We cannot bring back the old order of things in the industrial world, but we ought to welcome and understand the new, not as it has forced itself upon a world animated by self-seeking and greed, but as it ought to be when regulated by the wisdom and generosity of those who prize justice as the first necessity with their fellow-men. Modern social conditions are forcing the need for such an ideal before all who look beneath the surface of our boasted progress. If the engineers of the future strive to maintain this ideal, there are no reasons why before the end of the twentieth century they should not form a noble guild, girdling the earth both intellectually and materially, whose power and influence will lead mankind forward, even more in the future than they have done in the past, towards all that makes for prosperity, happiness, and peace.

ECONOMICS.

BEFORE this is possible it will be necessary that there be evolved a new system of economics suited to the requirements of the times as these have been modified by the influence of modern machinery and

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

industry, for without some guiding principles we will be apt to drift aimlessly, or, at least, our efforts are not likely to lead to useful results. During recent years a great change has taken place in the ideas and spirit of writers on economics, and it is now being recognised that political, moral, and industrial changes are clearly inter-connected*—

And that we shall understand the industrial changes most truly if we regard them as subordinate to the others. It is of course true that if its industrial system is not adequate, a nation cannot continue to be a great moral force as a civilised state, or to hand down monuments of its literary and artistic vigour. Political greatness and high civilisation imply the existence of industrial prosperity, and of sound industrial conditions if they are to be at all stable. But after all, the life is more than meat; each nation takes its place in the history of the world, not merely by its wealth, but by the use that it makes of it; industrial prosperity does not in itself produce national greatness; political views not only control the application of national wealth, but affect its increase.

These considerations are very often forgotten by statesmen and educationists who only look at one aspect of the subject, and so complicate the problems which are already so difficult and complex that the most earnest and optimistic of social reformers very often give up their attempts in despair.

The economics of the future will differ from that of the past in regarding the true life of man, and not the mere production of wealth, as the ideal to be kept in view, and the whole must be consciously dominated by a social purpose: that purpose being the raising of all men to similar chances of true life in labour. In all production the chief factor is the human factor, and whatever affects this will affect wealth production, and every effort must be subjected to the question. What effect will it have on the entire life of the nation and on humanity? The new economics will have for its starting-point the ethical community of which the individual is a member, and the gulf which at present exists between morality and economics will be filled up, and wealth will be compelled to take its true place as an instrument of life, and not be magnified into the chief end of life. The teaching of Ruskin has done much to mould the economics of the future by insisting†—

(1) "That political economy can furnish sound laws of national life and work only when it respects the dignity and moral destiny of man; in developing a complete human life is of incomparably greater moment, both to men and nations, than its production or accumulation, and can alone give these any vital significance. (2) That honourable performance of duty is more truly just than rigid enforcement of right, and that not in competition but in helpfulness, not in self-assertion but in reverence, is to be found the power of life."

* Cunningham. "Growth of English Industry and Commerce," vol. 1, p. 8.

† Cook. "Studies on Ruskin," p. 30.

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

EDUCATION.

A PROPER system of economics having been constructed, it is absolutely essential for the solution of our social problems that we should have a system of education in which the ideals which pervade the economics should be kept in view from the earliest years of the pupils. Such a system would include the training which is necessary to produce a healthy rational being, what is required to enable him to perform his duties to himself and those immediately dependent on him, and what is expected of him as a citizen, who recognises that the welfare of the community is intimately bound up with his own, and is, in fact, indispensable to it. In each of these departments the ethical side of the subject would be treated as by far the most important. At the present time undue attention seems to be directed to the mere improvement of mechanical arrangements and to technical education, whereas it ought to be remembered that*—

The industrial reformation for which Western Europe groans and travails, and the advent of which is indicated by so many symptoms (though it will come only as the fruit of faithful and sustained effort) will be no isolated fact, but will form part of an applied art of life, modifying our whole environment and regulating our whole conduct—in a word, directing all our resources to the one great end of the conservation and development of humanity.

Above all, it must be distinctly remembered that†—

For the difficulties of the new time there is no panacea; except the old and comprehensive one, that every man and institution in the country endeavour to do their duty. To face the calls of the present and the future we must aim at improvement and advance all along the line; improvement, mechanical and economical, and, above all, improvement in truth and righteousness. Our way must be through a persistent and enlightened effort towards the good as demanded by the exigencies of the time we live in.

TRANSITION PERIOD.

DURING the transition period of society many social experiments will be worked, and these will require to be gone about as carefully as all other experiments of a scientific nature, and careful observations made of existing conditions, modifying causes, and direct as well as indirect results.

One of the most difficult problems resulting from the methods of modern industry has been the alternate periods of over-production and great depression, accompanied by dislocations in industry and hardships to both the employers and the workers. The problem, as stated by Carlyle, is still about as far as ever from being solved.

Here (he said) are millions of bare backs, and there are millions of spun shirts. How are they to be brought together? Future reformers must set themselves the task of finding how this very desirable end is to be accomplished, and our legislators must prepare themselves for the problems which a changed civilisation has

* Ingram. "History of Political Economy," p. 246.

† Kirkup. "Inquiry into Socialism," p. 30.

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

brought with it, for it cannot be doubted that in the past industrial and economic changes have outrun political arrangements, and that in the injustices existing in the distribution of products we find one of the chief causes of our social evils. During the transition period a system of statistical returns for different departments of industry and commerce for this and other countries will to a certain extent tend to improved methods of distribution, and to the prevention of these extreme fluctuations of trade and industry which cause so much trouble both to employers and employed. In short, industry will more and more adapt itself to the changes in the environment produced by machinery. In doing this it will not only profoundly alter national but also international relations, both of which are much behind the wants of the age. The improvements which will be made will in turn make shorter hours possible for all classes, who will thus have leisure to devote to the several problems which are now demanding attention. The most important of these problems is how to gather in the disinherited; how to secure for all opportunity for work, control over the means of life, leisure, culture, and health without undue interference with the freedom of anyone. We have hitherto looked too exclusively to cheap production, and forgotten that improved consumption is quite as important. It ought to be recognised as a fundamental law of economics that production exists solely for the sake of consumption, and must therefore depend, both in its amount and in the character of its means, upon the amount of consumption. It is to the advantage of the employers, therefore, to encourage the market nearest their doors, and do all in their power to improve the social conditions of the workers.

Too much attention has hitherto been paid to the division of labour, and it is now time to begin to consider its integration. In fact, the ideal should be a society of integrated labour.*

A society where each individual is a producer of both manual and intellectual work; where each able-bodied human being is a worker, and where each worker works both in the field and the industrial workshop; where each aggregation of individuals, large enough to dispose of a certain variety of natural resources—it may be a nation, or, rather, a region—produces and itself consumes its own agricultural and manufactured produce.

The development of machinery, after having led to the extreme division of labour, is now tending, and during the transition period will increasingly tend, to produce an opposite effect, and to enable large numbers of small industries to be carried on in country districts, which may in the end produce a society of integrated labour such as has been indicated.

It is now being recognised by all parties that unfettered competition, either between individuals or bodies of men and women, is not a principle to which the regulation of industry can be safely intrusted, and that labour struggles should be rendered almost impossible, either by the direct intervention of the Government in some way or by the force of an enlightened public opinion recognising the rights of both employers and employed. Hence the extension of the application of Boards of Conciliation and Arbitration. Bureaus of Labour Statistics should be established for the information of all concerned, and details should be given regarding educational, moral, financial, and industrial questions in

* P. Kropotkin. "Nineteenth Century," Ap., 1888, p. 499.

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

other countries, for, unless we are prepared to set up a strict system of protection, we must keep ourselves informed as to what is being done in all quarters of the globe. The whole of the arrangements should be placed under the control of a Minister of Labour, whose department would be able to supply information on all the subjects connected with labour, and would thus help in the settlement of all disputes.

FURTHER EVOLUTION OF INDUSTRY.

IN a former paper * I gave a sketch of some of the developments of industry and commerce, and noted the tendency of trade and industry to concentrate in large companies, trusts, and syndicates, or to be taken over by the State—either central or local. The question for us now to consider is—how far is this development likely to proceed? Before indulging in any speculations of my own it may be useful to study those of such a cautious and distinguished economist as Dr. A. Schäffle, who does not believe in the possibility of social democracy, as they will at least furnish us with the lower limits of our integration. In a criticism of Bellamy's "Looking Backward," and speculating on the probabilities of the year 2000, he expresses the opinion that by that time there will have been a slow and gradual development of public management of many departments of business, in industry, trade, mining, and so on, which to-day are directed by private capital, and that thereby, as compared with the industrial and commercial capitalism of to-day, a very considerable economic progress will have been made; further, he thinks it possible that the valuation and appraisement of commodities and services as it takes place to-day will have been succeeded by a more regulated system of rating, practically satisfying the criticism of industrial and commercial capitalism of to-day, which Bellamy has given us in the form of a political romance. He holds it possible that by the year 2000 such a more public economic system may be manageable, and may effect a progress to a far better state of things in certain spheres than we have in the industrial and commercial capitalism of to-day, as well as reacting beneficially on the private production, which will even then be the rule in agriculture. If in the course of a long period of time public management were to take the field to any very large extent, it would be essentially through the agency of capital itself, and by the process of converting competition into monopoly both in industry and commerce; but this would mean that it had ultimately degenerated, either severally in its parts or by association, into an intolerable money slavery—both dangerous and harmful to the commonwealth, bringing ruin to the greater number of employers and bondage to

* "Co-operative Annual," 1892, p. 159.

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

the labourers. It is not—he continues—probable that capital will even reach such a self-destructive stage, but even should it do so, the State by the year 2000 would, there is no doubt, have a constitutionally tempered universal suffrage quite sufficiently at its command to check without revolution the consequences of this self-survival. Female labour will by that time probably have attained a well-regulated organisation. Protection of labour will have been carried to a far higher development. The inequalities of wealth and income will have been considerably modified; the disappearance of enormous properties and of hosts of destitute poor will have been succeeded by, and have rendered technically possible, an incomparably higher and better-to-do average condition of the entire people. In all this he sees nothing which is calculated to inspire alarm, because he thinks the development will proceed not upon the storm wind of universal revolution, but slowly by way of never-ceasing reform.

Dr. Schäffle cannot be accused of an overflowing imagination, or even of a very clear perception of present tendencies, especially as regards the future of capitalism. His admissions, however, regarding a higher state of social organisation are useful, as at least showing the probable minimum at which we ought to aim. His estimate of the demands of the workers is equally moderate. He says* :—

To the legitimate demand of social democracy, that there shall be furnished even to the proletariat of industry, as a result of their labour, a position worthy of manhood, and something more than the barely necessary share of the produce of the national labour community; that the abuse of the superiority of capital and credit shall be averted; that a sense of joint responsibility in relation to poverty and misfortune shall be awakened; that a public economic management shall be introduced, in so far as the capitalistic economy becomes actually useless. To this demand he thinks, however, the most complete satisfaction can be given in the way of positive reform, without suppressing capital in the shape of private property, but rather by generalising it. This is to be doubted, at least, in many cases. The present revolution will go on, probably at an increasing rate. Small concerns will be swallowed up in large ones, and for some of the necessities of life the public will find itself at the mercy of monopolies. It will then, of course, step in, and will stipulate for quality and limited dividends, and in other ways secure the rights of the consumers at large. Probably this, in some cases, might be found sufficient, but in others it will be necessary to assume complete control, and work the business in the interests of the community. The increase of concerns managed by public corporations will during the transition period tend to make competition fairer among those private establishments which do work for them, for the public will insist on a fair price being paid for all that is supplied to them. They are now

* "The Quintessence of Socialism," p. 126.

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

beginning to recognise that the lowest tenders are not always in the interest of the public, for these very often mean low wages and long hours for the workers, or bankruptcy for the employers, be they individuals or limited liability companies. Very often low prices have to be made up out of the public funds in some way or another.

THE SPHERE OF GOVERNMENT.

It is quite evident that the constitution of the society of the future will, to a large extent, depend on the conception which is formed of the sphere of Government. It is now admitted by all classes of thinkers that the State, or Government, as representing the whole community, has very necessary functions to perform in assisting the advancement of progress, although there are great differences of opinion as to the extent and the methods of intervention. What may be considered the modern school of economists may be regarded as about midway between the extremes of the State socialists and the individualists, and its creed is represented approximately by the principles of the American Economic Association, which was founded a few years ago. Among these we find the following:—

(1) We regard the State as an agency whose positive assistance is one of the indispensable conditions of human progress. (2) We hold that the conflict of labour and capital has brought into prominence a vast number of social problems whose solution requires the united efforts of the Church, the State and of science.

These two statements contain little with which individualists can find fault, and at the same time they are sufficient to meet the demands of all reasonable socialists. In fact, if we had the right kind of individuals we would also have very good socialists, so that individualism and socialism, although seemingly opposed, lead to the same results. Like Professor Huxley, I must admit that*—

My individualism is rather of a sentimental sort, and I sometimes think I should be stronger in the faith if it were less vehemently advocated.

Like him, also—

I am unable to see that civil society is anything but a corporation established for a moral object, namely, the good of its members, and, therefore, that it may take such measures as seem fitting for the attainment of that which the general voice decides to be for the general good. That the suffrage of the majority is by no means a scientific test of social good and evil is unfortunately too true, but in practice it is the only test we can apply, and the refusal to abide by it means anarchy.

The functions of the State have become very varied, and in addition to what was formerly its chief duty, namely, the protection of life, property, and freedom, it must undertake any other work

* "Social Diseases and Worse Remedies," p. 42.

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

which it can do more efficiently and with more advantage to the public than private individuals, if that be in the interests of the whole community.

The chief care should be that the tendency is always in the right direction. A glance at the history of the past quarter of a century shows most distinctly that that tendency is increasingly socialistic, and that events in the social and industrial worlds are all leading towards a form of society in which socialism will play an important part. A dignitary of the Church of England has recently said "that revolution we may perhaps escape, but that evolution in the direction of socialism he believes to be inevitable." This, however, is not incompatible with the development of the individual in mental, moral, physical, and social qualities; in fact, it is the necessary accompaniment of it, the object being in every case to enable individuals to help themselves, and to exert their best energies. At the same time, care must be taken that individual action or property does not interfere with the public good. In general legislation, the action of the State should be founded on the principle that the community has to concern itself with the affairs of the individual as little as possible in the way of hindering or commanding; but, on the other hand, as much as possible in the way of guiding and instructing. It should aim at making the people more self-reliant, and in order that it may be prevented from degenerating into an oligarchy all the actions of a government must be of such a kind as to be readily open to public criticism.

Many socialists and trade-unionists denounce both co-operation and profit-sharing. They fail to see that the chief hindrance to the success of their own proposals lies in the mental and moral unfitness of all classes of the community for anything approaching a socialistic *régime*, and they discountenance the only systems which are fitted to develop the needed capacity. Before we can have a fully developed democracy the nation at large must possess those moral characteristics which have enabled co-operators to introduce democratic self-government into a certain portion of the industry, commerce, and finance of the nation. The ideals of the leaders of the co-operative movement are rising. One of them recently said:—

The first essential on which co-operation must be based was not profit or dividend, but the enfranchisement of the worker. The folly of luxury, the vanity of ostentation, the caprice of fashion, the brutality of competitive commerce, are but the offspring of the foolish desire for wealth, which is the ideal of the middle classes, with their apotheosis of a selfishness which goes by the name of "self-help" and their preaching of a "thrift" which is apt to develop into the most sordid meanness.

A "Fabian" policy is now, however, being recognised by many socialists as the proper one to adopt, and from this point of view

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

true co-operators and Radicals are good socialists. One of the best writers among the latter has admitted that *—

All students of society who are abreast of their time, socialists as well as individualists, realise that important organic changes can only be (1) democratic, and thus acceptable to a majority of the people, and prepared for in the minds of all; (2) gradual, and thus causing no dislocation, however rapid may be the rate of progress; (3) not regarded as immoral by the mass of the people, and thus not subjectively demoralising to them; and (4), in this country at any rate, constitutional and peaceful.

On the other hand, a closer alliance is being formed between co-operators and trade-unionists, who both aim at raising the industrial classes; the former by building up a democratically controlled system of industry, the latter by a collective regulation of the conditions of employment, and both may develop into a real socialism in which the interests of the workers and of the community are the chief objects kept in view. Miss Beatrice Potter has pointed out that †—

The democratic form of co-operation may either be considered as an alternative to State socialism or as a stepping-stone to socialistic organisation in all its forms. In truth, the education of the co-operator raises the citizen to the plane of free and deliberate choice. Co-operators are strong enough to stand alone, and they are sufficiently intelligent and experienced to combine as citizens of the municipality, the county, or the State, when association, tempered by compulsion and framed on a larger and more enduring mould, is deemed or proved expedient.

Mr. Thomas Burt, M.P., recently said ‡ :—

The co-operative movement in its distributive aspect—co-operative shop-keeping—had been a great success; it had added immensely to the purchasing power of the working man, and had aided him in sharing the comforts of life that he did so much to produce. But his great hope in connection with co-operation has always been that through it, in one form or other, the great problem that perplexed us at the present time, that caused friction between employers and workmen, between capital and labour, was destined to be solved by bringing about a complete reconciliation and unity between these great interests that were necessary to each other's success. He had always considered co-operation as a higher form of trade-unionism; it was union on a higher plane, but on the lower level it was still necessary that they should have their trade unions as they existed at the present time.

The society of the future will probably contain a considerable admixture of individualism, trade-unionism, co-operation, and State socialism, as it will be found that not only is there room for all, but also that all are necessary. The socialisation of industrial enterprise, both by municipalities and the Government, which for some time has been going on at a rather rapid rate, will be greatly accelerated, and it will be difficult to place any limit to the extent of its operations, for of course they are only highly-developed forms of co-operation,

* Sydney Webb. "Fabian Essays," p. 34.

† "The Co-operative Movement," p. 190.

‡ Speech at Shieldhall, Glasgow, 9th Sept., 1892.

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

Co-operation is only a highly-developed form of trade-unionism. There will, however, always be fields of activity into which it will not be desirable that these bodies should enter, and which may heretofore be occupied by individuals and by co-operators apart from the State, either central or local, although their action may to a certain extent be controlled by it. Many co-operators at present think that if co-operation became universal, trade unions would no longer be necessary, for then all would share in the results of labour. It must, however, be evident that some kind of organisation of the nature of trade unions will be required for the arrangement of wages. Possibly it may take the form of councils representing the workers in the different departments, and of others representing all who are interested in the whole concern, whether these be the public or the whole body of workers. The time when the workers in different departments will be paid at the same rate is still in dreamland. Even in an ideal society the nature of the work will determine the length of the working day, which is only another way of determining the wages.

If State socialism ever becomes universal it must be by a slow process of evolution, which would not only produce the necessary economic changes, but also the moral qualities which are necessary to make it successful. A well-known writer has said * :—

If ever an ordered system of collective production be unfolded in the distant future its success would certainly be only slowly achieved, and certainly far more by the process of self-annihilation of capital in competition, and by the self-dissolution of the dominant liberal capitalistic system of business, than by the victory of the barricade; far more by the necessity of self-preservation, realised by the whole State, than by a violent blow from beneath. But, till then, there is still no doubt a long time to wait.

Henry George admits that †—

The idea of socialism is grand and noble, and it is, he is convinced, possible of realisation; but such a state of society cannot be manufactured, it must grow. Society is an organism, not a machine. It can only live by the individual life of its parts, and in the free and natural development of all the parts will be secured the harmony of the whole.

It appears evident that our social problems will be solved, not by the application of any new doctrine, but by recognising that the various conflicting doctrines have some elements of truth. The main problem, therefore, is—how far and within what limits are these doctrines true? ‡

The absolute collectivist would extend the jurisdiction of the State to every sphere of life, so that no room shall be left for the individual to turn himself about in and do just as he pleases. The absolute anarchist, on the other hand,

* Schäffle. "The Quintessence of Socialism," p. 125.

† "Progress and Poverty," book vi., chap. v.

‡ W. Clark. "Walt Whitman," p. 86.

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

would leave people to do what they thought proper in every relation of life. Neither the collective despotism nor the anarchaic individualism could, as a matter of fact, last anywhere twenty-four hours; and the modern man will certainly not tolerate either. The great problem for reformers now is to find out just where the collective action is necessary and desirable, and where it is impossible and dangerous.

This can only be done after a careful study of existing conditions, for the *duty* of any organism, of whatever kind, is simply that conduct which the history of its development and its environment render necessary. The duty of the State is evidently to gradually replace the government of persons by the administration of things and by the conduct of the processes of production, at least, when these can be carried on to the advantage of the whole community.

DEMANDS OF LABOUR.

THE use of machinery and the modern methods of commerce have resulted in placing the great mass of the people in a state of economic inferiority and dependence, while the action of trade unions and of combinations on the part of capitalists has ranged the opposing forces of capital and labour in battle array, and the great problem of the future is to prevent a catastrophe. The solution of this problem is the most important piece of work which any man or body of men can place before them as the chief business of their lives. It certainly is receiving considerable attention, and conferences and commissioners are at least collecting information regarding it, and correct data on any subject whatever are always the first steps to the solution of difficulties. A satisfactory solution is only possible by meeting the demands of labour in a reasonable manner.

The most important part of the labour problem is that relating to the general environment of the workers. As their economic conditions improved there should be a general improvement in their social conditions. It seems a very modest demand on the part of the workers that their labour should receive sufficient reward to enable them with prudence and economy to comfortably maintain themselves and their families, and that without requiring their wives to take any part in factory or other similar work, and to make provision, either directly or indirectly, for their decent support after their labouring powers have failed, that they should have healthy and convenient houses and workshops, that they should be protected as far as possible from injury when following their occupations, and that their hours of labour should not be so long as to injure their health and prevent them from enjoying a reasonable amount of leisure, and that proper facilities be given for the useful enjoyment of that leisure, either in their own homes or through the public institutions of various kinds.

Even from an economic point of view the reasonableness of these

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

demands is being admitted, and it is being gradually recognised that, after all, the human factor in industry is the most important. While there is a danger in the agitation for an eight hours day of urging it on altogether wrong grounds, and of forgetting the conditions which are necessary for making it either economically possible or socially desirable, I am of opinion that the latter are not so difficult as many would have us believe. For instance, the danger from foreign competition has been very much exaggerated, and I do not think that, except in a few cases, an eight hours day would place British manufacturers at a disadvantage. Moreover, legislation on this subject is advancing very rapidly in continental countries, and it will soon be up to the standard of this country, and possibly be beyond it, while the tendency is to make it more and more uniform in all similar industries, so that economic conditions may be the same.

Special legislation will be necessary for those occupations which are of an unhealthy character, or in which long hours are apt to endanger the public; but the examples of the State and municipal undertakings should have a great effect in helping to solve the labour problems. Government and corporation workshops should be models in every way as regards hours of labour, quality of work, and social conditions of the workers; and in these respects they should always be a little ahead of private employers. Thus, by the joint operation of Parliamentary restriction, combination among the workers, the example of Government and corporation workshops, and the force of public opinion, influences would be exerted which would evolve a higher social condition among the working classes and an economic condition of things in which no one would be compelled to work more than eight hours a day.

There can be little doubt of the necessity for a six days week for workers of all classes, and that being so, public opinion should be put into the form of an Act of Parliament. As little labour as possible should be employed on Sundays, but where it is necessary the workers should be able to demand an equivalent holiday during the week.

Problems which are now engaging much attention are those connected with a provision for aged workers, and for the employment of those who are unable to obtain work in the ordinary manner. Our space will not allow us to enter into their full discussion, but great care must be taken that no arrangements are made which tend to discourage all efforts towards independent provision for themselves, and thus generate a type of manhood wanting in human dignity. The first step in the practical solution of the problems is to try to discover whether the provision now given out by the Poor Law cannot be given in a better way and on better terms.

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

SPECIAL PROBLEM IN BRITAIN.

THE problem in Britain is special and may require exceptional treatment, in at least the matter of material conditions. Our immense industrial development has stimulated the increase of population to such an extent that we are largely dependent on foreign countries for food supplies, although much more than we need be if proper use were made of the land of the country. For some generations past Britain has been the workshop of the world, but now she has on every side rival nations, with large material resources which are being rapidly developed, and competition with other nations in foreign markets becomes more and more severe. Our colonies have been allowed to drift along in a state of more than semi-independence, while leaning on the mother country for support or defence, if necessary. We are now, however, beginning to realise the vastness of our heritage, and if we only had statesmen wise enough to lay aside party and personal disputes Imperial Federation might soon be brought within the range of practical politics, and we would have all the material resources necessary for the continued development of a great Empire within our own dominions.

We are so dependent on foreign trade at present that a sudden change of policy is impossible. If, therefore, Imperial Federation, or something like it, could be carried out the solution of our industrial problems would be very much simplified. It is long since Carlyle said* :—

To this English people in World-History there have been, shall I prophesy, two grand tasks assigned! Huge-looming through the dim tumult of the always incommensurable present time, outlines of two tasks disclose themselves: the grand industrial task of conquering some half or more of this terraqueous planet for the use of man; then, secondly, the grand constitutional task of sharing in some pacific endurable manner the fruit of said conquest, and showing all people how it might be done.

The first of these tasks is now in a fair way of being accomplished and we should brace ourselves to the second and more important. This may seem to involve to a certain extent a contradiction of the first, for it involves not only a large measure of local self-government but also of self-support, industrially and economically. Both together, however, would enable life to be much fuller and richer in every sense of the term.

LABOUR IN THE FUTURE.

IN the society of the future, alongside establishments belonging to private individuals and co-operative institutions, there will be developed municipal and State organisations for the supply of wants which are common to the whole community, or for the carrying on of businesses which have become monopolies. The proportion of

* "Chartism."

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

These three forms of industry will depend on local conditions, and on the nature of the work. Means of communication, such as railways, tramways, and canals, will all certainly be owned by the State or municipalities, and will be used by the people at much lower rates than at present, and in some cases will be altogether free. Water, gas, electric lighting, libraries, parks, galleries and museums, and all things of a social or communal interest, will be within the reach of all.

There can be little doubt that, as things develop, the houses of the majority of the people will be communal property, although this movement is likely to be slower than some of the others. A beginning, however, has been made. Such organisations as those of the Peabody Trustees, and the lodging-houses to be found in some of our large cities, afford a very probable basis for the extensive municipalisation of dwelling-houses. For many a day, however, a considerable proportion of the houses will continue to be owned by those who inhabit them, and no ill effect can result from this class of property. On the contrary, ownership will give those who inhabit the houses a greater interest in beautifying them and keeping them in order.

The socialists will say that the only logical conclusion is the absorption of all industry by the State or the municipalities, but it is probable that here again the influence of machinery may be powerfully felt. Hitherto that influence has been chiefly in the direction of concentrating industries in large centres, but now the tendency may be in the opposite direction. The use of electricity, water, gas, and compressed air may lead to a very great revival of the household and cottage industries, and instead of immense factories we may have comparatively small establishments of all kinds in which the workers may spend a few hours a day, and the remainder of their time in following agricultural or horticultural pursuits or other outside work or recreation. When things are made for use and not for profit, such a state of affairs is not inconceivable.

A socialist writer has expressed the following opinions regarding the future of the use of machinery* :—

For the consolation of the artists, I will say that I believe that a state of social order would probably lead at first to a great development of machinery for really useful purposes, because people will still be anxious about getting through the work necessary to holding society together; but that after a while they will find there is not so much work to do as they expected, and that then they will have leisure to reconsider the whole subject; and if it seems to them that a certain industry could be carried on more pleasantly as regards the worker, and more effectually as regards the goods, by using handwork rather than machinery, they will certainly get rid of their machinery, because it will now be possible for them to do so. It isn't possible now; we are not at liberty to do so; we are slaves to the monsters which we have created. And I have a kind of hope

* William Morris. "Signs of Change," p. 33.

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

that the very elaboration of machinery in a society whose purpose is not the multiplication of labour as it now is, but the carrying on of a pleasant life, as it would be under social order, that the elaboration of machinery will lead to the simplification of life, and so once more to the limitation of machinery.

The same conclusions are being arrived at by scientific men as the result of their observation and experience. Mr. Werner Siemens, for instance, has said:—

The goal of the revolution of science will not be a man of great factories in the hands of rich capitalists, in which the slaves of labour drag out their monotonous existence, but the return to individual labour.

Advantage will, however, be taken of the powers of machinery to produce in large quantities, and with the expenditure of little manual labour, the common articles of daily life, for it would be folly to dispense with such helps, as without them there must necessarily follow a restricted consumption and a lowering of the standard of comfort, for which there is absolutely no call. There will always be room for a considerable amount of individual effort, especially in the smaller and more artistic industries, which will for the most part be carried on in the leisure time of the people, and the products will be exchanged at a rate proportionate to the time which has been spent upon them, for the tendency of the future will be to level the value of all classes of work to a uniform time standard. In the private firms high skill will be necessary before an appointment can be obtained, and when a vacancy occurs, merit will be the only qualification for election. To be a member of a high-class industrial firm will be considered a high honour, and will be as much coveted as the membership of an Academy of Art is at the present time.

Workers of all classes in the future will probably have two main occupations instead of one. Those who work chiefly with the brain will keep themselves in good physical condition by a few hours' hard work with their hands, while the craftsmen and manual workers will set aside a certain part of their day to occupations of an intellectual kind. Whatever else a man may do, he will be expected to perform some productive work.

Possibly the greatest change will take place in our oldest and still most important industry, namely, agriculture. The advances of science and of mechanical appliances will make the cultivation of the more common articles of food much more abundant, while the increase of small farms and allotments, which will be cultivated to the utmost extent, will add immensely to the production of fruit and vegetables of all kinds, and thus lead to a very great change in the food of the people, which will be largely vegetarian in its nature. The more common agricultural products will no doubt be raised on the co-operative principle, which will allow the use of the applications of science and machinery. There will, however, always be plenty of openings for the application of small culture. Whatever

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

else a man does, if he spends a few hours per day in the fields or in the gardens, he will be able to produce if not sufficient food for himself and those dependent on him, at least a good part of it.

In fact, the society of the future is likely to be made up of groups of industrial villages, combined with agriculture, rather than of crowded cities and empty rural districts, as is largely the case at present. In various parts of the Continent industrial villages already form an important part of the social organisation, and even in this country a beginning has been made in the same direction. Some of these are in the hands of large capitalists, who have simply removed their establishments to the country in order that they may have cheaper ground or greater facilities for transportation, but others are made up of petty trades and domestic industries, in which the capital employed is not very large. In Germany, for instance, 97 per cent of all the industrial establishments employ less than five operatives, while many are engaged in domestic industries in their own homes. The moral and physical advantages which people would derive from dividing their work between the field and the factory or the field and the study are self-evident, and the development of science and machinery is beginning to make what is morally desirable, also economically possible.

These are very old ideals, for More, in his "Utopia," supposes that in the society he pictures they are carried out. He says:—

Agriculture is so universally understood that no person, either man or woman, is ignorant of it. They are instructed in it from their childhood, partly by what they learn at school and partly by practice, they being led out into the fields about the town where they not only see others at work but are likewise exercised in it themselves. Besides agriculture, which is so common to them all, every man has some peculiar trade to which he applies himself, such as the manufacture of wool or flax, masonry, smiths' work, or carpenters' work.

At the present time the highest aim of the workers as regards the length of the working day is to have it reduced to eight hours. This is a very moderate ideal and merely a return to the average of two or three hundred years ago, but almost five hundred years ago a philosophic writer* thought six hours a day more than sufficient for all the world required, and to the objection that this would not be found to be enough, he pointed out the large number of idle persons who ought to be made to work. That class has increased very much since that opinion was expressed, and our powers of production have been immensely developed. As in the society of the future there will be no idle persons, and as science and its applications to machinery will be taken advantage of to a great extent, it is probable that the working day may be shorter even than pictured in "Utopia."

* More, in "Utopia."

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

TRADE AND COMMERCE.

TRADE and commerce in the future will be very much simplified and better organised than at present. The process which is now going on, of the organisation of different departments, will be continued and extended until all the main branches of commerce are in comparatively few hands, and the trusts and syndicates and large limited liability companies which are now worked chiefly in the interests of financiers and shareholders will become national and municipal concerns for the good of the whole community. The manner of transformation will of course be different in different departments, but it may begin by placing a representative of the public on the board of directors, who will look after their interests and audit the accounts, and who, after allowing a fair rate of wages to the workers and a reasonable return to the shareholders, will cause the balance to be handed over to the public exchequer—either local or central. As matters develop more and more concerns will fall under public control, and will be managed by the local authorities in the interests of the whole community.

The organisation of commerce will save the labour of an immense number of middlemen of all kinds, a great deal of advertising, and an excessive waste of energy in needless transportation and unnecessary handling, and the workers thus set free will go to swell useful production, and be able to reduce the length of the working day far below eight hours, which is the highest aim at the present time, a result which, as I have pointed out, will be further facilitated by the extensive use of mechanical appliances of all kinds. All buying and selling will take place in large halls belonging to the community, and the process will be as direct as possible, so that all intermediate losses will be prevented and all accounts simplified. It will be possible to avoid those dislocations of commerce caused by excessive production in special departments, for a complete system of statistics will enable manufacturers to regulate their output according to the demand, and even in cases where exact calculation is impossible little hardship will be caused, for there will be no difficulty in transferring the workers to another department.

Foreign and international trade will be made easy by the same system of statistics, and the central clearing-houses in different parts of the world, with international councils, will enable those responsible for it to regulate its amount. Being paid for by an exchange of products or manufactures, the prices will depend, not on competition or the necessities of the purchasers, but on the amounts charged to the people of the countries where the goods are produced, and which will always be regulated by the amount of work involved in their production. That the international organisation of trade is quite

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

ossible is shown by the management of those departments which have fallen into few hands, and which have agencies in all parts of the world.

SANITARY CONDITIONS AND HEALTH.

THE progress of science and the improvement of sanitary conditions will, of course, have a great effect on the health of the people, while the high standard of moral conduct will have an equally great effect on their general welfare. Many of our diseases will disappear, and health will be maintained until what is now considered extreme old age. The freedom from care, the absence of vice, and the excellence of the sanitary arrangements will give a beauty and symmetry of feature such as is to be found only in the masterpieces of our great painters, while the thorough command which all will exercise over their passions will invest them with a serene dignity and conscious power such as is now rarely seen. The cultivation of handsome men and women will become a fine art, and decrepit and imbecile individuals will be almost unknown. Campanella said the people of the "City of the Sun" laughed at us, who exhibit a studious care for our breed of horses and dogs, but neglect the breeding of human beings. Men and women at present throw on what they call the mysterious dispensations of Providence, the responsibility for their own ignorance, sensuality, or carelessness. If they were perfectly honest to themselves they could explain those so-called dispensations, and it is certain that the society of the future will not accept such same excuses for neglect in the performance of the highest duties of the race.

In this connection all will have very high ideals of the duties and obligations of marriage, many of which are ignored in the present state of society. Women will no longer be slaves or purchasable instruments, but will be the partners and helpers of men. They will be relieved from work in the factory and workshop, the greater part of which will be performed by automatic machines under the superintendence of boys and men, for while in the meantime we must insist on factory and other workers of the same class receiving fair treatment, we must remember that a gradual change will take place in the industrial position of women. In the society of the future, while they will have every opportunity of exercising all their talents, they will be shielded from all heavy and degrading work, so that they may become the healthy mothers of a noble race, and add to everything which tends to beautify and refine life.

What we at present call hospitals, and look upon as the chief glories of our civilisation, will have almost entirely disappeared in the future, for the conditions of society will have rendered them unnecessary. They, in their present conditions, are monuments

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

of neglected duties and reservoirs of diseased poor; but, as in the future there will be no neglected duties and no poor—at least, no degraded poor—the necessity for institutions of this kind will no longer exist. No doubt there will be facilities both for surgical and medical treatment, but they will be more of the nature of sanatoria than hospitals, and will be managed under conditions which will soon restore health to those who, by accident or otherwise, are unable to perform their daily duties.

DOMESTIC ARRANGEMENTS.

THE extension of social and municipal facilities of all kinds will greatly simplify the domestic arrangements of the future, and to a very large extent abolish the drudgery connected with house-keeping. By the system of co-operative households the work connected with cooking will be much lessened and made more economical and efficient, and dinner at least will, as a rule, be taken in a public or semi-public place of entertainment. The washing will all be done in public laundries at very cheap rates, and the making and repairing of clothes will for the most part be carried on in public establishments. Heating will be arranged on scientific methods, and there will be neither waste of fuel as at present nor pollution of the atmosphere by smoke. Service of all kinds will be largely by means of mechanical appliances. Every home will have attached to it, when the conditions permit, a piece of land in which the members will employ not only part of their spare time, but also raise fruits, vegetables, and flowers, which will be used in the household. The applications of science will be made to bring forth products to a much greater extent than at present. The opinion that such operations would not pay is simply not worth considering. They certainly would pay better than loafing at street corners, or spending money in public-houses and low-class music-halls.

Many of the enjoyments of the people will be available in private houses by means of telephones or other arrangements connected with municipal institutions. Music will be as easily obtained as gas and water are at present, and the audiences of distinguished orators and preachers will be immensely increased by connecting the room in which they speak with other rooms in all parts of the town. There will, however, be no great wish to indulge in such luxuries in private houses. The people will recognise that in order to enjoy either music or oratory it is necessary to be in the company of your fellow-creatures. In fact, the chief characteristic of the life of the future will be that while the social life will be full and complete, the methods of living of the individual will be frugal and temperate, without being ascetic, for the people will have recognised that unless

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

he merely animal and sensual appetites be kept under neither mind or body can be bright or active, nor can the spiritual nature rise to its highest possibilities. The aim of all will be to increase the municipal and national wealth. Work will not be looked upon as the chief end of life, but will be regarded simply as a necessary duty to be discharged before it is possible for the workers to devote themselves to the highest exercise of their faculties, the intellectual and spiritual employments and pursuits, which alone mean life. The object of all the mechanical developments I have suggested will be to remove all hindrances to the attainment of this higher life, although all will, as I have pointed out, perform a certain amount of useful productive work, sufficient not only to keep them in physical health, but also in many cases to provide them with food and clothing. The great increase in the use of machinery will not only allow short hours to be worked, but also provide for the wants of those engaged in the non-productive work which is required for the enjoyment or education of the community.

STATE OF SOCIETY.

THE tendency of all the arrangements I have indicated will be to equalise conditions. There will be no very large fortunes, for rich men will see that a fortune above the average is a heavy burden, and will devote all they can spare to social purposes. We are told that we will always have the poor with us, but the truth of this of course depends on what we mean by poor. It certainly does not mean that the starving degraded wretches, who live in hovels in our large cities and even in some of our country districts, are an essential part of the society of the future. Those who object to what they call Utopian ideas may at least begin with this one, and devote some of their energy to the removal of what even they acknowledge to be blot on our civilisation. They will find their efforts in this direction very educative, and as they progress with their work their ideas of what is possible will expand.

When the country districts have been peopled by a happy and contented race of men and women the congestion of the towns will have disappeared, and the slums have given place to open spaces and wide streets. The large city of the future will be a place of magnificent distances, but the excellence of the means of communication will make this no inconvenience.

In the society of the future the best men, instead of vying with each other in a race for wealth and honours, which never allows the evil passions any repose, but on the contrary encourages them to excess, will find their greatest pleasure in the improvement of social organisations, and they will consider themselves wealthy not in proportion to the extent of their personal possessions, but rather of

those they can share with all other classes of the community. Parks, galleries, museums, libraries, theatres, and places of entertainment of all kinds will be abundant, and in connection with each of these there will be opportunities for conversation and healthful refreshment. All these things will be largely taken advantage of, not only for their own sakes, but also for the opportunities they give for social enjoyment.

William Morris has said*:—

For my part I can't see why we should think it a hardship to eat with the people we work with. I am sure that as to many things, such as valuable books, pictures, and splendour of surroundings, we shall find it better to club our means together; and I must say that often when I have been sickened by the stupidity of the mean idiotic rabbit warrens that rich men build for themselves in Bayswater, and elsewhere, I console myself with visions of the noble communal hall of the future, unsparing of materials, generous in worthy ornament, alive with the noblest thoughts of our own time and the past, embodied in the best art which a free and manly people could produce; such an abode as no private enterprise could come anywhere near for beauty and fitness, because only collective thought and collective life could cherish the aspirations which would give birth to its beauty, or have the skill and leisure to carry them out. I for my part should think it much the reverse of a hardship if I had to read my books and meet my friends in such a place; nor do I think I am better off to live in a vulgar stuccoed house crowded with upholstery that I despise, in all respects degrading to the mind and enervating to the body to live in, simply because I call it my own or my house. It is not an original remark, but I make it here, that my home is where I meet people with whom I sympathise, whom I love.

Such arrangements, however, do not involve the destruction of the family and of family life, but, on the contrary, offer it far greater possibilities of enjoyment and completeness than at present. While the social spirit will be much more fully developed than at present, the family will remain as the unit of social organisation and as the foundation of society. Agreeing with Dr. Schäffle, "it is my opinion that the firm family bond between husbands and wives, parents and children, is not destined to destruction, but rather to a more perfect development;" and, further, that if society is to be stable in the future it must rest on the family, which develops fuller personal responsibility and deeper intensity of feeling than any other form of human organisation.

A nation trained as I have indicated will clearly realise that the object of life is to live and be happy, and therefore through all its departments there will be abundant opportunities for recreation in the proper sense of that term. Lord Lytton, in his well-known novel, "The Coming Race," pictured a state of society which our command of the forces of nature and the drift of recent legislation seem almost to bring within our grasp. He imagined—

A state in which war, with all its calamities, was deemed impossible, a state in which the freedom of all and each was secured to the uttermost degree, without

* "Signs of Change," p. 31.

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

one of those animosities which make freedom in this world depend on the perpetual strife of hostile parties. Here the corruption which debases democracies was unknown as the discontents which undermine the thrones of monarchies. Equality here was not a name; it was a reality. Riches were not prosecuted, because they were not envied. Here those problems connected with the labours of a working class, hitherto insoluble and conducing to such bitterness between classes, were solved by a process the simplest, a distinct and separate working class was dispensed with altogether. Mechanical inventions, constructed on principles that baffled my research to ascertain, worked by an agency infinitely more powerful and infinitely more easy of management than aught we have yet extracted from steam or electricity, with the aid of children whose strength was never overtasked, but who loved their employment as sport and pastime, sufficed to create a Publicwealth so devoted to the general use that not a grumbler was ever heard of. The vices that rot our cities here had no footing. Amusements abounded, but they were all innocent. No merry-making conduced to intoxication, to riot, to disease. Love existed, and was ardent in pursuit, but its object, once secured, was faithful. The adulterer, the profligate, the harlot were phenomena so unknown in the commonwealth that even to find the words by which they were designated one would have had to search throughout an obsolete literature composed thousands of years before. . . . In their own way they are the most luxurious of people, but all their luxuries are innocent. They may be said to dwell in an atmosphere of fragrance. Every room has its mechanical contrivances for melodious sounds, usually turned down to soft-murmured notes, which seem like sweet whispers from invisible worlds. They are too accustomed to these gentle sounds to find them a hindrance to conversation, nor when alone to reflection. But they have a notion that to breathe an air filled with continuous melody and perfume has necessarily an effect at once soothing and elevating upon the formation of character and the habits of thought. Though so temperate, and with total abstinence from other animal food than milk, and from all intoxicating drinks, they are delicate and dainty to an extreme in food and beverage; and in all their sports even the old exhibit a childlike gaiety. Happiness is the end at which they aim, and not the excitement of the moment, but as the prevailing condition of the entire existence; and regard for the happiness of each other is evinced by the exquisite amenity of their manners.

Lord Lytton was too good a Conservative even to allow his imagination to picture what was unrealisable in social conditions, if we only deliberately set our minds to obtain them. In fact, More's description of life in Utopia seems almost within our reach, subject of course to the altered conditions which science and its applications to machinery have brought about. He said:—

The chief, and almost the only business of the Syphogrants, is to take care that no man may live idle, but everyone may follow his trade diligently; yet they do not wear themselves out with perpetual toil, from morning to night, as if they were beasts of burden, which as it is indeed a heavy slavery, so it is everywhere the common course of life amongst all mechanics except the Utopians; but they, dividing the day and night into twenty-four hours, appoint six of these for work, three of which are before dinner and three after. They then sup, and at eight o'clock, counting from noon, go to bed and sleep eight hours. The rest of the time besides that taken up in work, eating, and sleeping is left to every man's discretion; yet they are not to abuse that interval to luxury and idleness, but must employ it in some proper exercise according to their various inclinations, which is for the most part reading. It is ordinary to have public lectures every morning before daybreak, at which none are obliged to appear but those who are marked out for literature; yet a great many, both men and women of all ranks, go to hear

THE POSSIBILITIES OF MACHINERY AND INDUSTRY AND SOME OF THEIR

lectures of one sort or other, according to their inclinations. But if others, that are not made for contemplation, choose rather to employ themselves at that time at their trades, as many of them do, they are not hindered but rather commended, as men that take care to serve their country. After supper they spend an hour in some diversion, in summer in their garden, and in winter in the halls where they eat, where they entertain each other either with music or discourse. They do not so much as know dice or any such foolish and mischievous games.

The happiness of the people of the future will be promoted by the removal of the load of anxiety regarding the future which at present presses on nearly all, and they will thus be able to indulge in healthful pleasures. All will be active and willing workers during the best part of their lives, and when old age comes, and they have been relieved from the obligation of working, they will be able to claim an allowance, which will not merely be sufficient for their urgent necessities, but also commensurate with the average wealth of the community. The claim to this allowance is based on the truth that the wealth of the civilised man is not the product of his own individual capacities, but is the result of the intellectual and manual labour of previous generations and the co-operation of the present one, and this common possession belongs as much to the weak and helpless as to the strong and capable.

The welfare of the community will be advanced by the fact that there are no drones or parasites of any kind, and that all will be engaged in work of a congenial and pleasant nature. The mere interest-drawing capitalist will have disappeared, for while interest will not be forbidden by law, the economic conditions will be such that it will be so small, and in some cases little if anything above zero, that accumulated wealth will no longer be a burden on labour, and those who wish to live on their money, as the expression is at present, must live on their capital, a process which of course will soon come to an end.

The force of public opinion will find expression through the newspapers, which will gradually become the most effective teachers of the people, and not as they too often are at present, mere pieces of machinery for the making of money, or tools in the hands of capitalists for the manipulation of the wealth of the world. They will in the first place give accurate accounts of what is going on in different parts of the country, and of the world, but in addition they will keep their readers in touch with all the best thoughts in literature and philosophy, and the latest discoveries in science and inventions in industry. The most important journals of the future will be managed in the public interests by boards of trustees, who will select for the positions of editors, writers, and publishers men of integrity, of broad minds and liberal culture, of energy and ability, fired with an enthusiasm for the public welfare and animated with noble ideas, who will take care that all sides of public questions are

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

carefully discussed, so that the journals may be correct indicators of the state of the nation in every department of thought and action.

Every man and woman will feel it to be their duty to take part in public work of some kind, and municipal and social duties, which are not attached to paid offices, will be so subdivided that they will not be found burdensome. The absence of want will enable all to use their powers to the greatest advantage in any department of work in which they are specially interested. The highest honours will be of an immaterial kind, and will be simply marks of the estimation in which the recipients are held by their fellow-citizens, and they will be awarded to the great authors, artists, engineers, and inventors of the generation, and to those who devote their services to the good of the community.

SCIENCE, LITERATURE, AND ART.

In a society constituted as I have supposed, and composed of individuals educated under the conditions I have explained, the pursuit of science in all its departments will naturally receive much attention. The applications of science to every-day life will be so numerous, and the environments of the young so permeated with its spirit, that they will learn a great deal about it, in the same way as they learn to speak, that is insensibly and without trouble. Its systematic study, however, will receive careful attention in the schools, colleges, and universities, and that not merely on account of its utilitarian applications, but also for the pleasure which it gives. The eyes of the people will be so well trained to observe, their hands to manipulate, and their brains to reason that the whole world will be a scientific laboratory, and a great many of the people searchers into the secrets of nature.

But then, as now, many will be of a literary rather than a scientific nature, although a combination of the two will not be uncommon. The nature of the literature will be very different from that of the present time, for many of the topics which now interest us will then have ceased to interest. War, passions, social conditions, views of life and conduct will have so changed that many of our present classes of books will have disappeared, or will only be found in museums and libraries as illustrations of a former and lower state of civilisation.

The drama of the future will be a most powerful instrument of development* :—

Such a social drama, eminently religious and educational, as much vaster than the drama of Shakespeare, in proportion and purpose, as the idea of humanity is grander than the individual idea.

* Mazzini.

While in the future science will become the servant of humanity, and literature its instructor, art will be its handmaid, and sweeten and beautify all that is done. There will, of course, be artists who will devote the greater part of their time and energy to their art, but the workman and the craftsman will not be divorced as at present. They will very often be combined, and work will not only be useful, but also beautiful. Art, in short, will not be outside the national life as at present, but will form part of it, or, rather, will permeate it. The great painters will no longer paint treasures for rich men to hide away, but as in the best days of Athens, Florence, and Venice, their supreme efforts will be addressed to the people at large, and will always be available to them in public galleries, or, better still, as forming essential parts of the designs of public buildings.

The artistic spirit will find expression not only in manual productions, but also in soul-inspiring music. The drift of modern science and industry is towards materialism. The science and industry of the future, while advancing man's material interests and ministering to his convenience, will show him those things that sustain his spiritual life and the conditions which minister to his peace, and he will clearly realise that if he is really to live it must not be by bread alone, but also by admiration, hope, and love.

As I have pointed out, the special conditions of Britain seem to require a closer connection between the different parts of the empire than exists at present, in order that there may be an effective solution of our social and industrial problems. When this has been carried out, and when social conditions have been improved and brought into a state of stable equilibrium, probably the process of decentralisation would be continued to such an extent as to make the work of the central Government more nominal than real, and the English-speaking people of the world would settle down in a large number of self-governing but perfectly friendly and co-operating communities, and with no stronger bond between them than that of brotherhood.

Should, however, Imperial Federation prove the dream of enthusiastic minds, what then? Even then I despair not of the future of Britain. Her past history might make her the university of the world in all that relates to the development of the human race, and especially of science, literature, and art. As Ruskin has pictured*—

We may assemble troops of the more adventurous and ambitious of our youth; we may send them on truest foreign service, founding new seats of authority and centres of thought in uncultivated and unconquered lands; returning the full affection to the native country no less in our colonists than in our armies, teaching them to maintain allegiance to their fatherland in labour no less than in battle, aiding them with free hand in the prosecution of discovery, and the

* "The Crown of Wild Olives," p. 203.

PROBABLE RESULTS ON SOCIAL AND ECONOMIC CONDITIONS.

victory over adverse natural powers ; establishing seats of every manufacture in the climates and places best fitted for it, and bringing ourselves into due alliance and harmony of skill with the dexterities of every race, and the wisdoms of every tradition and every tongue.

He goes on to say—

And then you may make England itself the centre of learning, of the arts, of the courtesies and felicities of the world. You may cover her mountains with pasture, her plains with corn, her valleys with the lily, and her gardens with the rose. You may bring together there in peace the wise and the pure, and the gentle of the earth, and by their word command through its furthest darkness the birth of "God's first creature, which was light."

You know whose words these are—the words of the wisest of Englishmen. He, and with him the wisest of all other great nations, have spoken always to men of this hope, and they would not hear. Plato, in his dialogue of Critias, his last, broken off at his death ; Pindar, in passionate singing of the fortunate islands ; Virgil, in the prophetic tenth eclogue ; Bacon, in his fable of the New Atlantis ; More, in the book which, too impatiently wise, became the by-word of fools—these all have told us with one voice what we should strive to attain ; *they* not hopeless of it, but for our follies forced, as it seems, by heaven, tell us only partly and in parables, lest we should hear them and obey.

Shall we never listen to the words of these wisest of men ? Then listen, at least, to the words of your children. Let us, in the lips of babes and sucklings, find our strength, and see that we do not make them mock instead of pray when we teach them, night and morning, to ask for what we believe never can be granted : that the will of the Father—which is that His creatures may be righteous and happy—should be done *on earth*, as it is in Heaven.

CONCLUSION.

THOSE who have been brought up under an individualist competitive system may say that life under such conditions as I have pictured will be intolerably dull, and that without the spur of competition there will not only be an end to progress, but retrogression and decay. I would rather have them believe that society will reach Herbert Spencer's ideal, although by a different road than he has supposed, and that the * "future social type will neither use the products of industry for maintaining a militant organisation nor exclusively for material aggrandisement, but will devote them to the carrying on of higher activities—a type which, instead of believing that 'life is for work,' will hold the inverse belief that 'work is for life.'" It must be remembered that the best work the world has ever seen has been done, not through competition, but from a love of the work ; and when we have had a generation or two of improved social and economic conditions, our ideals will be so raised and our natures so trained that such a spur will be unnecessary.

Domestic life will then be invested with a beauty and happiness which is at present undreamt of even in our highest and most

* "Principles of Sociology," vol. 1., p. 563.

THE POSSIBILITIES OF MACHINERY AND INDUSTRY, ETC.

refined homes in the land. With beautiful and convenient houses in pleasant positions, and with appliances of all kinds to save menial work, and, above all, with the members of the families all animated by an unselfish and social spirit, the powers of the individuals will develop under the influences of such an environment, and of a temperate mode of life. Leisure will be spent in public services, recreation, study, or in the practice of an art or trade, different from that which is the main work of their lives. Men's riches will not consist simply in balances at their bankers or in investments in more or less speculative concerns, but in their share of the social opportunities for improvement and recreation, and their aim will not be to pile up gold for themselves, but rather to make their parish or their city rich in public institutions open to all. While the necessity for useful work will keep habits simple, and yet make true refinement possible, the greatest art and splendour will be devoted to public buildings. Freed from the wear and tear, the worry and anxiety of our present methods of life, all will in happy emulation strive to enrich the means of living in every way. Trade, commerce, and industry will be carried on in a spirit of social responsibility and co-operation, and nothing will be tolerated which degrades any portion of the community. Our relations with foreign countries, especially with those below us in the scale of civilisation, will be guided by the highest principles of justice and morality. The spirit of that new religion, that larger faith, the dawn of which we already faintly perceive, will strengthen all, and public duties will claim the first attention. The progress we have already made proves that such a state of affairs is almost within our grasp, and should encourage us to redouble our exertions to hasten the true Millennium—the Kingdom of God upon earth—and which can only come when truth has been discovered in all that relates to human welfare, and has been carried into practical effect.



BRANCH OF COCOA (*Theobroma cacao*) WITH
FRUIT AND FLOWER.

TEA, COFFEE, AND COCOA.

BY JOHN R. JACKSON, A.L.S., ETC., CURATOR OF MUSEUMS,
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[ILLUSTRATED BY JOHN ALLEN.]

IF the question as to the importance or otherwise of the vegetable kingdom were to be answered alone by the history and commercial bearings of the three products which stand at the head of this article, they would be amply sufficient to confirm the view that vegetable products do indeed constitute in the commerce of the world very powerful factors. Not only does the cultivation and preparation of tea, coffee, and cocoa give employment to immense numbers of people in different parts of the globe, but after their preparation, and when once they have found their way into commerce, their diffusion is so widely spread over the universe that the farthest ends of the world are affected by them, both as articles of trade and as articles of wholesome consumption. Neither in the cultivation, preparation, subsequent manipulation or use of the three popular beverages, are any injurious effects produced. With regard to their popularity they may be classed in the order in which they appear in our title.

TEA.

THIS article stands pre-eminently at the head of non-intoxicating beverages, and its consumption has gone on increasing for many years past. Reasons are not difficult to find for this growth in estimation of a beverage so thoroughly well established as tea,—the increase in population, and the general adoption, to some extent at least, of the manners and customs of our fathers and mothers, the very widely-extended cultivation of the tea plant in India, Ceylon, Natal, and other countries, from whence (especially from British India and Ceylon) we now import very large quantities, are amongst the causes of this increase. In consequence of these extended resources the competition between tea-growing countries has been more keen, so that tea has been brought more within the reach of the working classes, and where good tea not so many years ago sold at 3s. or 4s. per pound, the same quality can now be had for 2s. or 2s. 6d.

The tea plant (Plate 1) is a bush, or shrub, growing some two or three feet high, belonging to the natural order *Ternstroemiaceae*, and known to botanists under various names. At one time, indeed, it was generally supposed that black and green teas were the produce of distinct plants, the first being known as *Thea Bohea*, and the latter as *T. viridis*, both names being given by Linnæus, who also named the

TEA, COFFEE, AND COCOA.

plant *Thea chinensis*, in consequence of its being supposed to be a native of China. At the early part of the present century the plant was transferred to the genus *Camellia*, by a well-known botanist, under the name of *Camellia Thea*, and at a later period by an Indian botanist, under that of *Camellia theifera*. It is, however, under the name of *Camellia Thea*, of Link, that the tea plant is now generally known. Whether the plant is really indigenous to China or not is still a question of uncertainty. Specimens are contained in most of the large herbaria, from China, Japan, and Formosa, but it is very probable that the plant is really a native of Upper Assam, and that it was introduced into China from India at a very early period, where it spread by cultivation till it assumed all the appearance of a native plant. The enormous scale upon which tea cultivation has been for many years carried on in China is too well known to need more than a passing mention; its extended cultivation in India, however, and its great success in that country as well as in Ceylon, are matters of more recent occurrence. Beyond these two countries tea is also grown successfully in Japan, Java, the Southern United States, as well as in Natal. With a plant so long under cultivation as the tea has been both in China and in India, there is, as might be expected, a considerable range of form, though all botanists are now agreed to refer them to one species, the different kinds, forms, or qualities being due to the age of the leaf, the quickness and care exercised in drying, and general manipulation.

In China (which until 1888 was the greatest tea-producing country of the world) it is said that upwards of 4,000,000 acres of land are under its cultivation, the annual produce of which is estimated at about 3,000,000,000lbs. The rapidity with which tea culture has been taken up in India, and the enormous outturn, has surprised even the most sanguine of India's capabilities. Thus in the Trade Returns for the year ending December 31, 1887, we find that there were imported into the United Kingdom from China, 119,739,116lbs., while from British India the imports were 97,830,117lbs. In the following year, however, the Chinese imports fell to 105,424,271lbs., and the Indian rose to 113,004,692lbs., and in 1889 to 127,160,409lbs., while the quantity received from China fell to 88,848,574lbs. Up to this period, however, the produce of Ceylon was classified in the Trade Returns with that from British India. In 1890 they were separated for the first time, and the returns given as follows:—From British India, 103,550,924lbs.; from Ceylon, 42,709,718lbs.; from China, including Hong Kong and Macao, 73,635,351lbs.; and from other countries, 4,758,378lbs.; making a total from all sources of 224,654,371lbs., of which 194,008,492lbs. were entered for home consumption. During the year 1891 (the latest of which we have any official record) the quantities received here from India and

TEA, COFFEE, AND COCOA.

Ceylon rose considerably, but the imports from China showed a continued decrease. The figures respectively stood thus:—From British India, 109,865,933lbs.; from Ceylon, 62,073,330lbs.; from China, 61,935,325lbs.; other countries, 6,458,739lbs.; making a total of 240,333,327lbs., of the money value of £10,775,345. The quantity entered for home consumption during the year was 202,456,837lbs. With figures like these, which year by year show a large and steady increase, coupled with the fact that tea is used by fully one-half of the human race, there can be no question as to its importance both in its social and commercial bearings, and this will justify us in giving some details of its history, development, cultivation, and preparation for market. Regarding its history, we have already stated that though so long believed to be a native plant of China, it has been shown by modern botanists, as conclusively as is possible under such circumstances, to be a native of Assam. Nothing definite on such a matter can of course be proved; and even if we accept the Chinese legend of the discovery of the tea plant in China it proves nothing, for the plant might have been introduced to China from India before the date upon which the discovery is based; and though the discovery is said to have been made by an Indian prince and not by a Chinaman, the individual might not have been fortunate enough to have seen the plant in its native country, but accidentally to have come across it in the course of his foreign travels. Another point is that the legend associates India and China in the discovery of the properties of the tea plant by attributing it in the first instance to a prince of the former nationality, and claiming the plant itself to be indigenous to the latter.

It was in or about the year 510 A.D. that this discovery was said to have been made by Dharma, an Indian prince and religious devotee, who imposed upon himself the penance of doing without sleep, and got on very well in this way for some years, when, in his wanderings one day, he gave up and indulged in a nap on a mountain side. Upon awakening he was much annoyed at his weakness in giving himself up to sleep, and in desperation pulled out his eyelashes and threw them on the ground. Returning the same way at a later period, he was much surprised to find the eyelashes had grown into bushy plants such as he had not seen before, and out of curiosity he nibbled some of the leaves, and found they possessed the peculiar property of inducing wakefulness. This interesting fact soon became talked about, and the plant was taken in hand and cultivated, and soon became widely spread. This legend is perpetuated even to the present day in a form of fancy twist tea, known in the country as old man's eyebrows.

Whatever may have been the early beginnings of the tea cultivation in China, it is certain that after generations have much to be thankful

TEA, COFFEE, AND COCOA.

for to the beneficent discoverer of the properties of tea. Regarding the general use of tea as a beverage in China, it is said by Soliman, an Arabian merchant, who travelled in the East about the year 850 A.D., that it was in common use in the country about that period. Macpherson, in his "History of European Commerce with India," states his inability to find any other reference to it prior to the visit of the Jesuit missionaries to China and Japan some short time before the middle of the sixteenth century. In some notes on tea in the "English Cyclopædia," the following occurs with reference to this subject:—

Anderson, in his "History of Commerce," quotes Botero as giving the earliest account in 1590, when he says that the Chinese "have also an herb, out of which they press a delicate juice which serves them as drink instead of wine."

Texeira, a native of Portugal, about the year 1600, saw the dried leaves of tea at Malacca; and Olearius found them used in 1633 by the Persians, who obtained them from China by means of the Usbeck Tartars. Tea, coffee, and chocolate are all mentioned in an Act of Parliament of 1660, whereby a duty of 8d. is charged on every gallon of chocolate, sherbet, and tea made for sale. But the use of it at that time must have been new, for Pepys, in his "Diary," writes, September 25, 1661: "I sent for a cup of tea (a Chinese drink), of which I had never drunk before." The Dutch East India Company probably first introduced it into Europe, and from Amsterdam it was brought to London; but tea must have continued to be brought in small quantities only, for in the year 1664 the East India Company purchased, for the purpose of presenting to the King, two pounds and two ounces of tea; and in the year 1678 they imported 4,713 pounds of tea, which was then, for the first time, thought worth their attention as a branch of their trade.

Tea, however, continued to flourish in China; plantations were continually extending until enormous tracts of land were covered with the plant. The quantity produced and exported became enormous, and this notwithstanding that so long back as 1834 public attention was directed to the plant in Assam, where plantations were subsequently established. But it was not till 1839 that Assam teas were first sold; and, owing to the novelty and competition with China, they realised extravagant prices, ranging from 16s. to 34s. per pound. Increased production and the wearing off of the novelty in course of time brought these prices down to the level of ordinary Chinese teas. Nevertheless there was for a very long time a strong prejudice amongst consumers in this country against the Indian product—a prejudice that seems to be inherent in English people, who are always more or less opposed to the adoption of new products. The flavour of Indian teas did not at first appeal to English tastes, and, though they were not considered suitable to be used alone, they soon began to find favour for blending with Chinese teas. There can be no doubt, however, but that the system of adulteration, which became so general and widespread in China, helped in a marked degree to hasten the substitution of the Indian for the Chinese growth. It has been stated by an eminent authority on the subject

TEA, COFFEE, AND COCOA.

that seven-eighths of all the tea shipped from China in 1859 was adulterated. The adulterants were found to be spent tea leaves from some of the provinces, unsound leaf from others, and the leaves of several different kinds of plants. So serious had this system of adulteration become in 1874 that the British Consul at Canton, reporting to the Foreign Office, after stating that teas in China were hastily and imperfectly prepared to meet the demands of the market, being loaded with iron filings and refuse matter to give them weight, and mixed with leaves other than those of tea, delivers himself of the following powerful remarks :—

It is hopeless to expect that a remedy for the evil will be found in China, and to lay the blame upon the Chinese producers and teamen, the fact being that the Chinese producers and teamen care no more for the genuine quality of these goods, so that they can sell them, than the English merchant does at home, and the blame, if any, attaches to each side pretty equally; but perhaps the reasonable view to take of the deterioration is that it is a fault of system rather than individuals, and the correction must be found in the first instance at home. Questions of this kind are open to arguments of a very wide range, and must be so in all cases where people lay the blame on each other, but there is one that admits of no doubt of fact, and that is conviction by a magistrate, the effect of which has already made itself apparent in the Chinese market, and would, if frequently repeated, seriously damage the interests of spurious tea and give the home consumer something like a pure article for his money.

Outside the question of adulteration, however, the quality of teas vary very much according to the situations of the plantations, soil, care in picking, drying, roasting, and packing, and even in the time occupied by transit across the sea. It is well known that teas deteriorate considerably by a long sea journey, and that the finest teas produced in China are never sent out of the country but are consumed by the upper classes of Chinese themselves. Some excellent quality teas, however, are carried overland from China to Russia for the use of the Russian nobles. Wray states that when at Malacca he had a small sample of Mandarin tea presented to him by some Chinese merchants which was a kind never sold to foreigners, but that it commanded a price of 50s. per pound in China itself. A great variety of fancy teas are prepared by the Chinese, and they seldom leave the country except as curiosities. On the other hand, the quality of tea generally consumed in China is of a very poor character. Wray estimated that the annual consumption of tea in China was more than ten times as much as that exported to all other countries.

So soon as Indian teas began to be pushed in the English market the decadence of the Chinese product also began, due, as we have seen, to a certain extent to the very general system of adulteration that prevailed in China, and also to the hurried manner in which the teas were prepared for the European market. The competition that prevailed at one time, more so than at present, between fast

TEA, COFFEE, AND COCOA

sailing ships in bringing in new season's teas, though at the time was supposed to cause a brisk demand, did really in the end assist the downward grade. In 1878 this was so manifest that the British Consul at Foochow, reporting to the Foreign Office on the tea trade of that port, says :—

At the opening of the market in May there was shown the same eagerness among buyers for rapid shipment by the quickest route, the same rivalry to be first to lay down the new teas in the London market. Evidently this is the chief aim among buyers for home consumption. One would suppose that this hurry to buy and ship off would hardly leave time for the study of the leaf; cargoes must, in many instances, be put on board in an imperfect state. A competition begun among the teamen or brokers for the purchase of the teas from the country growers, and followed up by a spirited competition among foreign buyers to obtain the teas from the teamen, cannot fail to enhance the price of the article for exportation. One other result of this double competition is the neglect of the growers to improve the cultivation of the tea plant. The shrub is left to wear itself out; the leaf, at first left too long on the trees in order to obtain larger leaves with greater weight of tea, is then hurriedly picked and the tea hastily prepared. No better proof of this exists than the marked inferiority of the teas shipped from Foochow during the last few years.

It will be unnecessary to trace the fluctuations and vicissitudes of the Chinese tea trade between the date of the above report (1878) and the present time, but the consular report on the tea trade of Foochow for 1891 confirms, to a great extent, the prediction of that of twelve years previously, and is given in the following words :—In consequence of orders from Peking, recommendations were posted in the various tea countries by the local authorities to improve the quality of the teas this season as a means towards the resuscitation of the trade. Some of the teamen in the Pakling, Paklum, and Panyong districts did their best to further this end, and to a certain extent succeeded; but, on the other hand, judging by results, no other conclusion could be arrived at than that those making teas in all other districts had disregarded the recommendation. The former were buoyed up with hope at the opening of the market, when they obtained for a few of their best crops prices 20 per cent higher than the highest price paid last season, that they were going to make their fortunes, and congratulated themselves on having followed the guidance of the Mandarins. Their satisfaction was, however, short lived, as the demand for fine tea—at any rate, high-priced fine tea—fell away, and, as they persistently refused throughout the season to meet buyers in the matter of price, they were left at the close of the year with the bulk of their teas on hand. There were exceptions to this rule, but as far as foreigners were concerned, whether they bought of these men at the high price, or of others who submitted to a reduction, they lost money on their ventures. The prices paid for medium teas at the opening of the market, although no higher than last year, were thought by many to be dangerously high considering

TEA, COFFEE, AND COCOA.

the low values ruling in the London market, and the telegraphed sales towards the end of July proved that they were so, indeed the losses made on shipments up to that time were, on the average, heavy. Then, as a natural consequence, prices declined and remained low, though not low enough, as it turned out, for the well-being of those who shipped, as the forced sales of the increased supply of Ceylon and Indian teas in Mincing Lane further depressed prices in that market, and if losses were comparatively light on these autumn shipments, they were none the less, on the balance, losses.

To the natives the season has again been one of severe losses. The little profit made on common tea went no way to make good a tithe of the money they lost on the better kinds. Those of them who have been engaged in the particular branch of the trade of making tea, and bringing it down to their market, appear never to have heard of the competition of India and Ceylon, or, if they have, cannot bring themselves to believe that tea can be produced in any other country than their own. According to a late report, however, they are at length alive to the true state of the case, and are combining to face the difficulty. From what is known of the cost of preparing tea and bringing it to their market, the ingenuity of these Chinese will be taxed severely. The cost of growing may be a bagatelle, and labour, we know, is cheap enough; but the lekin and petty exactions of the officials as the tea is in transit will, as matters stand, make it a very difficult thing for them to compete with India and Ceylon. The only chance of success lies in these exactions being reduced. Then there is the export duty. However fair it may have been at the time the last treaty was signed, it is galling for those interested in the trade, both the Chinese and the foreigner, to know that 25 to 30 per cent on the average value of tea has to be paid. Again, the supply of Congou shows a serious falling off. The deficiency is 50,000 chests, or 13 per cent, the figures being 345,000 chests against 395,000 last season, and, to show how rapid the decline of the trade is, 850,000 chests in 1880. Of other kinds, Souchong and Pekoe have been in supply about the same as last year, while Oolong and scented tea show an increase; but Congou is the backbone of the trade. The total yield of the four last-named descriptions is only 90,000 chests. A noticeable feature is the larger business done this year in the manufacture of brick tea by the Russian houses. Only a small proportion of the tea used for this purpose is included in the above figures of Congou supply, the remainder being brought down to these firms under contract in bags. Altogether 100,000 chests, consisting entirely of dust and broken leaf, were manufactured in this way and shipped to the North; the increase representing about 37,000 chests. The following table, showing the decrease in the quantity of tea exported

TEA, COFFEE, AND COCOA.

from Foochow during the past three years, will be both interesting and instructive :—

PLACE TO WHENCE IMPORTED.	1889-90. lbs.		1890-91. lbs.		1891-92. lbs.
Great Britain.....	26,778,000	..	24,169,500	..	17,888,000
Continent of Europe	1,646,000	..	1,491,500	..	2,438,000
Australia, New Zealand	20,768,000	..	15,251,000	..	13,700,000
America	3,758,000	..	3,405,000	..	4,100,000
South Africa	1,632,000	..	1,543,500	..	1,246,000
South, destination unknown ..	3,884,000	..	4,714,000	..	4,266,500
North, chiefly for Russia	6,090,000	..	8,885,000	..	13,000,000

The foregoing remarks and figures will give a fairly good idea of the present position of the Chinese tea trade. The preliminary or experimental stage has long since passed in India. Englishmen who went to India twenty or thirty years ago to embark in tea cultivation have for some time past gained their experience either in failure or success, according to the capabilities and industry or idleness of the men themselves. So far as our own personal experience goes of old Indian tea planters, they have not only been successful, but the reward they are now reaping, for application and industry in the earlier days of Indian tea planting, is one of affluence. There is, of course, always the danger of overdoing a thing, which results in overstocking the market and bringing the price down to an unremunerative point. This has been done from time to time with various products in different parts of our colonial possessions, sometimes ending with ruin to the planters, but with great advantage to the consumers. No better illustration of the extended culture of any given product—resulting generally in a vast benefit to the human race—can be referred to than that of the cinchona bark trees, which has been the means of bringing down the price of that invaluable medicine, quinine, in a period of twenty years, from one guinea to one shilling per ounce. It is a question whether tea planting in India is not being overdone, and the extension of the cultivation of the plant in Ceylon to the exclusion of coffee may lead to anything but satisfactory results, so far as the planters are concerned, in years to come. Important as all the plants are which we have now under consideration, it seems often lost sight of by planters, in their desire for immediate returns, that there are other cultural industries of a remunerative character to which they might turn their attention.

It may be of some interest to many persons who know tea only as a manufactured article if we give here a brief outline of the *modus operandi* of its cultivation and preparation as now carried on in India, and as the Kangra Valley plantations are perhaps the best known, our description will refer to the work as performed in one of those plantations which lie along the slopes of the North-West

TEA, COFFEE, AND COCOA.

Himalayas, nestling at the feet of mountains some 10,000 to 16,000 feet high, and forming a beautiful valley about 8,000 square miles in extent between the Ravi and Sutlej. It is in this tract of country that most of the European tea planters have settled and made round them comfortable homes and homesteads, which remind the un-scorched visitor from the plains of India of far-off English farms. At the upper part of the valley, and lying opposite to a huge gorge in the mountains, from which the planters obtain their daily supply of ice in the summer, lies Palumpore, the headquarters station of the tea district, having its Government offices, rest-house, dispensary, planters' club, and beautiful little church. The situation is at an elevation of 4,000 feet above the sea, and the climate is excellent for eight or nine months of the year, but the heat and rains for the other portion are far less enjoyable though extremely well adapted to the growth of tea. It is stated that the original seed which was used in this district was introduced by Dr. Jameson—the official Government pioneer of tea cultivation—from Dehra Doon, and it became so reproductive in the soil of the Kangra Valley that it now supplies the planters of its native Doon and many of the younger tea districts.

The seed, or rather the fruit containing the seed, is carefully gathered during October and November by boys, girls, and women. A large yield of seed indicates something wrong either in cultivation, season, or soil. The planter's object is, of course, to grow as large a quantity of new and vigorous leaf as possible, and cultivation suited to leaf production is not conducive to large crops of seed. The seeds are sown in the nursery, usually in the fruit, as gathered, in drills a foot apart and four inches deep. A shady spot is selected for the seed beds, that they may be protected from the cold of winter and the parching heat of summer. As the necessary decay of the seed takes place in germination, the outer husk decays and feeds the younger plant. In the comparatively temperate climate of Kangra this care is necessary, but in the hot, steaming climate of Assam, where tea is native, the seed has only to be dibbled into the land in the position the plant is permanently to occupy.

After the jungle has been cleared for the new plantation or garden (Plate 2) the seedlings may be transplanted to their places, usually at the beginning of July. In rich soils, where the growth of the plants will be quick and luxuriant, the seedlings are planted at greater distances from each other than in poorer soils, where the growth will be slower and the bushes less robust. The pits in which the seeds are sown are dug in rows, and so correctly does the coolie perform this part of his work that the plants are rarely an inch out of the direct line or of the proper depth in the soil. In three years the plants, if in good soil, begin to be profitable, and need no further

waterings, although they are not in full bearing for perhaps seven or eight years. During their minority each plant requires careful cultivation, constant hoeing, fairly liberal manuring, and judicious pruning. In November the winter cultivation of the mature bushes begins. Divisions of the strongest men are told off to hoe the garden throughout to a depth of one foot, and this work of hoeing should go on all the year round with variations of depth at different seasons.

On the subject of pruning (Plate 3) a great deal has been said by planters and practical men generally, who are somewhat divided in their opinions as to the efficacy of the different methods. Pruning is, in fact, one of the most important operations on a tea plantation. Twenty years ago it is said that in India tea pruning consisted simply of slashing off the top of the bush and cutting three or four large holes into the body of the plant to admit light and air. The method that has since found favour in India is to cut off all the old white, and gnarled wood and all the "whipcord" an inch or two below the surface of the soil in such a way as to cause the bush to bleed as little as possible. Then all the long straggling roots are cut back, no matter how good their material may be; and, lastly, all the shoots are cut back close to the finest bud growing from the axilla of the leaf, which is left to act as shelter.

Bushes of about four feet in height are the most convenient for boys and girls to pick from, and some of the best bushes in the Kangra Valley plantations are of this height and about six or seven feet in diameter.

Tea pruning commences, usually, in November and lasts till the end of the first week in March. Men with strength and tact are usually given the work of cutting out the thick, tough wood from beneath the soil, and the lighter pruning is done by boys, who have the character of being sharper and more active and willing than men. The best pruner cannot average more than twenty full-grown bushes in a day.

The period for picking (Plate 4) usually commences about the middle of April, at which time every available hand, whether man, woman, or child, is put on to assist the permanent staff. It is estimated that every acre of a tea plantation in full yield requires one man and a boy to cope with the gathering, and in large plantations of several hundred acres it requires some tact and consideration to keep all the hands going. The gathering is mostly continued till the end of October. A long succulent shoot runs up of four, five, or even six leaves, and from these three or four are taken, the whole shoot, stem and leaves, being picked off by the fingers down to the leaf, which is left to shelter the bud from which the new growth is to spring. At times the growth is so rapid that by the time the pluckers have

TEA, COFFEE, AND COCOA.

been round the whole garden in the course of two or three weeks, and have, with their nimble fingers of both hands at work at the same time, taken off all the shoots that are then ready for plucking, new shoots have come to perfection. It is astonishing how few mistakes these pluckers make; they become such adepts at the work that it is very seldom that too few or too many ready leaves are picked from any particular shoot. The result of a day's picking may amount to some 5,000lbs. of leaf, which has all to be carried to the factory (Plate 5), where the operation of drying commences. If black tea is required the leaves are spread out to wither, which is done by putting them in thin layers in light bamboo trays in racks one above another, where they are left till the following morning, when they have assumed a dark green colour and have become withered, soft, and pliable (Plate 6). The leaves are next rolled for the purpose of giving them the curled or twisted appearance in which they are seen in commerce. This rolling process is mostly done by machinery, which, at any rate, is a saving of labour, though it is a divided question whether the tea is not better when rolled by hand, which operation is conducted as follows:—A quantity of the withered leaf, say about a hundredweight, is given out to every three men, and if the leaf is succulent it will take them four or five hours to roll this properly; the work is hard and exhausting, and very often the men begin work as early as three o'clock a.m. so as to get it well over before the hottest part of the day. Each man takes a big handful of leaves, then with arms and hands he gives a sort of rotatory movement to the leaf, which he presses with the palms and heels of his hands, and deftly gathers together with his fingers, working the mass so that every leaf becomes twisted and the cells ruptured, so that the juices are dried off more quickly. When sufficiently manipulated (Plate 7) the mass of leaves is left in ball shape and is placed to ferment in baskets lined and covered with damp blankets, and sufficiently large to hold about 2 cwt. each.

The period allowed for fermentation is guided by the experience of the manipulator or planter, and requires much judgment and practice, as it is a matter of much importance and has a considerable effect on the quality of the tea. Fermentation should be checked when the leaf is of a bright colour, and before it gets so far as to blacken it. The balls of rolled tea leaves are next taken from the baskets, broken up, and thrown into iron pans and gently roasted over a slow fire; the fermentative process is thus stopped, but the leaves are sufficiently pliable to be rolled a second time, which is mostly necessary at this stage. The leaf is from this time called *tea*, though it is not sufficiently finished to be sent into the market, for even after panning the colour of the newly-manufactured tea is liable to change, becoming, as it is thought, oxidised by the action

TEA, COFFEE, AND COCOA.

of the air. For his own advantage the planter naturally sees that one process in the preparation succeeds another as quickly as possible so that the new tea is immediately spread on bamboo mats, or sheet of zinc, and exposed to the hot sun, where it dries rapidly, the twisted form being fixed and a bloom given to it. To prevent any possibility of the tea becoming sour, or losing its aroma from exposure it is next placed in wire gauze trays holding about 2lbs. each, and placed over charcoal fires, where it is quickly dried off, when it is ready for sorting for the market, which is a long and tedious operation. During the process of manufacture, teas are, to a certain extent, classified; broadly speaking, they are sorted by a system of sifting (Plate 8), which separates the larger and coarser leaves from the younger and finer kinds. The final process of sorting is effected by shaking out a small quantity at a time on to bamboo trays, from which the deft fingers of native boys and girls quickly pick out and separate the different qualities, and at the same time reject all foreign or useless matter.

In Ceylon the entire process of tea preparation is done by machinery, and it is considered to be better made and more cleanly than when handled by the natives.

Before the tea can be shipped it has, of course, to be packed in boxes or chests, which are lined with thin sheets of lead to prevent any chances of damp or mildew attacking it, and to preserve the aroma (Plate 9). The chests are for the most part made on the plantations themselves from timber cut from a neighbouring forest; a variety of woods are used in India for this purpose, teak, perhaps, being the most general (Plate 10). It is, of course, absolutely necessary to reject a resinous wood or one containing any aromatic oil, or the flavour would be imparted to the tea and the whole cargo spoiled. We have thus briefly sketched the processes of tea cultivation and preparation, our remarks on the latter referring, as will be seen, to the preparation of black tea. Genuine uncoloured green tea is prepared in much the same way, with the exception that it is dried off more quickly, not allowed to ferment so long, and the final roasting perhaps more carefully accomplished.

Notwithstanding that Indian tea now forms more than 50 per cent of all the tea consumed in this country, where twenty-seven years ago China furnished 97 per cent, we have also other countries competing, notably Ceylon, Japan, Java, Singapore, Burma, the Cape, and Natal, besides which tea plantations have been established in South America and quite recently in Mauritius. Even so far back as 1877, Japan teas had made such progress in the previous ten years that from nothing the exportation had risen to 25,000,000lbs. It is, however, in Ceylon that the most rapid and interesting progress has been made.

TEA, COFFEE, AND COCOA.

The first introduction of the tea plant into Ceylon dates from 1841, the actual plant, it is said, having been brought from China; other plants were brought about the same time from Assam. The plants grew well and ripened seed, from which a few plants were raised more as a curiosity than for any practical purpose. In 1865 a company, known as the Ceylon Company, took over certain properties upon which was a small extent of tea. An experienced planter from Assam became manager, and a large acreage was soon opened up, the produce of which was sold for local consumption. Other plantations were soon formed; and in 1867, Dr. Thwaites, Director of the Botanic Gardens, Peradeniya, reported that a sample of Ceylon tea prepared from the China plants had been favourably received in London; and in 1875, Dr. Thwaites reported that "it is now a well-established fact that commercial tea of a very superior quality indeed can be produced in Ceylon." Since then the development of the tea plantations and the manufacture of tea has gone on by "leaps and bounds," becoming in 1888 the leading industry in Ceylon, and occupying an area at the present time of some 200,000 acres of cultivated land.

What is not a little remarkable is the extension of the use of Ceylon tea in countries other than our own, and where it might be little expected. Thus the progress made in the development of the Australian and New Zealand markets continues, the amount exported to those countries nearly doubling itself every year. The greatest proportionate increase during the past year or two has taken place in the American and Canadian sales, which have been multiplied nearly four times in the course of one year. It has been estimated recently that the Australians consume 81 ounces of tea per head of the population, the English people 73 ounces, while the inhabitants of the United States come next with 21 ounces, and those of Russia, Belgium, Holland, and Denmark consume only from 7 to 8 ounces per head of the population. Why Ceylon tea should be shipped to Hong Kong seems beyond comprehension; yet, in 1890, it seems that no less than 84,000lbs. were thus consigned—an apt illustration of "carrying coals to Newcastle."

To sum up the respective merits of Indian, Ceylon, and China teas, we cannot do better than give the results of an inquiry into the subject which recently appeared in a daily contemporary. The opinions here expressed are those of Mincing Lane experts.

On the side of Ceylon and Indian teas it appears that the consumption of these kinds amounted in 1891 to 150,000,000lbs., and that of China to 52,000,000lbs., or, according to the accepted standard, the equivalent of 39,000,000 barrels in fluid tea; and it is interesting to note that it is computed that the consumption of liquid tea jumped up to 2,500,000 barrels in 1891, and that of 1890, in its turn, had

TEA, COFFEE, AND COCOA.

been 2,000,000 above the total of the preceding year. So long as the weaker teas of China were being rapidly displaced by the stronger teas of India and Ceylon the increase in the consumption of dry leaf was hardly appreciable, although a larger quantity of liquid tea was being used. The displacement of China teas during the last two years has not been very marked, hence the greater weight of tea required to supply the gradually expanding liquid consumption. This fact, with the reduction of duty to 4d., is doubtless answerable for the heavy increase in the use of dry tea. There is this remarkable feature in the home consumption of the past year, for the first time Ceylon tea has been more largely drunk than China tea. In 1887, 10,000,000lbs. only of the former were used, to 90,000,000lbs. of China tea. In 1891 the use of Ceylon tea increased to about 50,000,000lbs., while the quantity of China tea was reduced by about 40,000,000lbs.; Indian tea supplying the bulk, namely, about half of the home consumption. About 50 per cent more Ceylon tea was used in Great Britain in 1891 than in the year previous. Extraordinarily low prices were current during the last few months for the lower grades of Indian and Ceylon teas, these constituting the main portion of the tea drunk in this country. They were obtainable at a lower price than was ever previously known.

In reference to the depreciation of China teas, it is contended that had the Celestial Empire continued to send tea of really good quality, Indian and Ceylon teas would probably never have been heard of. The advantages of the latter are summed up in the following—that they sell better, go further, and, in a word, are more economical; and, according to the Customs testing, 1lb. of China leaf will produce 5 gallons of liquid tea, but 1lb. of Indian tea will give $7\frac{1}{2}$ gallons, or 50 per cent more.

On the question of Sir Andrew Clark's recent condemnation of Indian tea, it is said, on the one side, that the general mistake made by the public is to infuse Indian tea too long, as it contains a much stronger body in the "extract," that is in the amount soluble in water, than China tea does. The tea is stronger, consequently it is unnecessary to draw out the total strength it possesses. Indian tea should never be allowed to stand longer than from five to seven minutes, when we get the flavour of the tea without the tannin. A ten to fifteen minutes' infusion extracts the properties that are undesirable, and the use of the "cosy," now so general, should be avoided, as it assists this operation. If the tea, after its infusion of five or seven minutes, is poured from the pot into another vessel the cosy may then be used with advantage to keep it warm, and this plan is strongly recommended as the proper way of making tea, care being taken that the water is just on the boil when the tea is made.

TEA, COFFEE, AND COCOA.

On the side of China tea, it is advocated that after fifteen minutes' infusion the best China tea gave 7·97 per cent of tannin; ordinary Congou, 11·15 per cent; and Indian tea, 17·73 per cent; and the moral thus drawn was that for persons with weak digestion the best possible quality of China tea should be selected. In confirmation of this it is pointed out that the Russians drink only China tea, and such tea as is ordinarily drunk in Russia cannot be obtained under 3s. per pound retail. In Moscow as much as six roubles, or 12s. per pound, is paid for tea, and Russia is taking an increasing quantity of the finest teas which China produces every year, and the prices paid for it are beyond the English market.

We have endeavoured in the foregoing remarks to place the history of the development, fluctuations, and progress of the tea trade of the three great producing countries of China, India, and Ceylon as clearly and as briefly as possible before our readers. Whether the British possessions will maintain the position they have now assumed, or go beyond it, depends upon the firmness or change in the public palate, guided, perhaps, by the powerful advocacy of those interested in the produce of the respective countries. That tea can and has been grown and prepared successfully in other countries, such as Jamaica, South Africa, South America, and the Azores, has been proved, but the chance of their becoming tea-producing countries in a commercial sense is perhaps doubtful, in the face of our present supplies; still less chance is there for tea proper ever being supplanted by substitutes prepared from other plants, although some 80 or 100 substances might be enumerated that have at different times and in different countries been so used.

It may be worth while recording here that the first attempt to prepare tea from English-grown plants was made so recently as May last (1892), when the Princess Louise and the Marquis of Lorne partook of tea in Exeter Hall, Strand, that had been prepared by an old Ceylon tea planter from plants grown at Putney. Tea of English growth and preparation also formed one of the attractions of the International Horticultural Exhibition held at Earls Court during the summer of 1892.

COFFEE.

THE word coffee, now so familiar to us, is said to have been derived from the Arabic name of the decoction, which is variously spelt *café*, *chaubé*, *caova*, &c., while the scientific generic name of *Coffea* was in its turn derived by Linnæus from coffee. The specific name of *arabica* is, to say the least, misleading, as it would appear to indicate that the plant was originally a native of Arabia, to which country indeed it was introduced from the opposite coast of

TEA, COFFEE, AND COCOA.

Abyssinia so late as the fifteenth century. The native home of the coffee is in the tropical parts of Africa, on both the eastern and western sides of the continent as well as in the interior. It is common, as we have said, in Abyssinia, and is also abundant in Angola, and is probably indigenous on the Mozambique coast. It was, however, as a product of Arabia that coffee first became known to Europeans, although in Abyssinia its properties had been known from time immemorial. In 1554 coffee became known as a beverage in Constantinople; from Turkey the use of coffee spread to Europe, being introduced to England before either tea or cocoa. In 1652 a Turkish merchant brought the first bag of coffee to London, and in this year coffee was first drunk as a beverage in the English capital, though it seems to have been introduced into Oxford the year before, for we read that "in 1651, one Jacob, a Jew, opened a coffee-house at the Angel, in the parish of St. Peter-in-the-East, Oxon; and there it was, by some who delighted in noveltie, drunk. When he left Oxon, he sold it in Old Southampton Buildings, in Holborne, near London, and was living there in 1671." About the period of the introduction of the beverage, the plant itself had become known to botanists. The Dutch were the first European people to grow it, at the end of the seventeenth century, at Batavia, where it was raised from Arabian seeds. In 1690 one of these plants was sent to Amsterdam, and after this the plants soon became known in European gardens. Bishop Compton grew it at Fulham in 1696. From Amsterdam plants were sent to the Dutch colony of Surinam, where the cultivation of coffee was started in 1718. In 1725 the plants were secretly carried to Cayenne by the French. Its introduction to the West Indies took place about 1720, or thereabouts, and was due to a French naval officer, who took the plants, in the first instance, to Martinique. The first coffee plant cultivated in Brazil, which is now one of the greatest coffee-producing countries in the world, was grown by a Franciscan monk in the garden of the Convent of San Antonio, near Rio Janeiro. The plant grew well and the ripened fruits were presented by the monk to the Viceroy, who distributed them to planters, and the cultivation was started in 1774. From Java the coffee plant spread to Sumatra, Celebes, the Philippines, and in much more recent times to Southern India and Ceylon. Thus the very widespread cultivation of coffee at the present day, and the establishment of a very important branch of commerce, is traceable to the single plant sent from Batavia to Amsterdam two hundred years ago.

After the introduction of coffee into London as a beverage, in the middle of the seventeenth century, coffee-houses were soon opened in various parts of the Metropolis as well as in other parts of the kingdom, and a duty of 4d. per gallon was fixed upon the liquid,

TEA, COFFEE, AND COCOA.

which duty was continued till 1689. So rapidly did the use of coffee spread after its introduction that Acts were passed for the licensing of coffee-houses, and the regulating and collecting of excise duties in connection therewith, though for the first fifty years at least its use remained more as a luxury amongst the upper classes than as a general beverage. During the whole of this time the bulk of the coffee consumed in Europe was brought from Arabia.

The coffee plant in its natural condition is a shrub some 15 or 20 feet high, but sometimes growing to the height of a small tree. It belongs to the natural order of plants known as *Rubiaceæ*, and is a near botanical ally to the genus *Cinchona*, or quinine yielding plants. It has a very graceful habit, with long and drooping branches (Plate 11). It bears clusters of small white blossoms, which, when fully opened, have a powerful fragrance. The fruits, or berries, which succeed the flowers, are at first dark green, changing to yellow as they ripen, and becoming quite red or even a deep crimson when fully ripe. The berry or fruit consists of a mass of pulp, which is mucilaginous and somewhat sweet and glutinous. In the centre of this pulp are two oval-shaped seeds, rounded on one side and flat on the other, the two flat sides being face to face in the fruit. These seeds form what is known as coffee "beans," or whole coffee. Immediately covering the seed is a woody or bony membrane of a pale straw colour, called the parchment, and inside this is a very delicate silvery skin, under which name indeed it is known.

Coffee cultivation at the present time extends over a very wide geographical range, for we find it growing in Brazil, Peru, Central America, Ceylon, Southern India, Sumatra, Java, Manilla, Arabia, the West Indies, the Pacific Islands, Mauritius, Natal, &c. It is, however, from Central America and Brazil that we now draw our largest supplies. Ceylon, of course, is an important coffee-growing country. This island, however, had the misfortune to be visited in 1869 by a small fungus, which did most serious damage to the coffee plantations. The fungus, which is known as *Hemileia vastatrix*, had, in the space of two months after it was first observed, spread over two or three acres of plantation, and from that time increased with extraordinary rapidity, carrying destruction wherever it spread, and at the expiration of three years there was not an estate on the island free from it. From Ceylon it appeared in Southern India; in Java in 1878, in Fiji in 1880, and in the Mauritius in 1881. It continued its ravages in Ceylon for several years, almost depriving the island of its staple product. With a shock of this character it is perhaps rather surprising than otherwise that in the past year Ceylon should have been able to export to this country as many as 54,699 cwt., which, indeed, was a falling off from 69,357 cwt. in 1890. It has been shown that a single coffee plant was sent from Paris

TEA, COFFEE, AND COCOA.

to Martinique in 1720, and in order to keep the plant alive during the long passage, it is said that the captain of the vessel shared his small allowance of water daily with the young plant. From this little plant originated the cultivation of coffee in Martinique, Guadaloupe, Cayenne, St. Domingo, and the other West Indian Islands. These islands, which formerly furnished a large supply for export, have almost dropped out, and the extension of the sugar culture in the West Indies has been the means of transferring the coffee production to Central America, Brazil, Ceylon, and Java. In Jamaica the coffee plant is said to have been introduced in 1728, by Sir Nicholas Lawes. In 1752, 6,000,000lbs. of coffee were exported, and in the three years ending 1807 the average annual shipment was 28,500,000lbs. In 1844 there were 671 plantations in the island, some of the finest and most productive of which were at an elevation of 4,700 feet in the vicinity of Blue Mountain Peak, and the quality of the coffee produced there is of a very superior nature.

In the West Indies and Central America the plants are usually raised from seeds in nurseries, and at the age of six months they are transplanted into the field in squares of from eight to nine feet apart. In about three years the plants begin to bear, and but little attention is required to be given to them during this period besides keeping them clear of weeds and freeing them of suckers or sprouts, and giving them a slight moulding. After gathering, the fruits are simply dried in the sun, or they are passed through the pulping mill which removes the fleshy portion or pulp. The beans, or seeds, are next washed for the purpose of removing the remaining glutinous substance and to enable them to dry more rapidly; they are, of course, still in their parchment, or skins, and are in this state exposed to the sun to thoroughly dry, after which they are removed to a building with wooden floors, upon which they are spread sometimes to a depth of twelve or eighteen inches. While they are thus deposited a considerable amount of attention is necessary to prevent the coffee from becoming heated, by the action of which it would not only deteriorate in quality but lose its characteristic colour. To prevent this it is frequently turned over, and ashes, or dry lime sprinkled over it. The parchment is next separated from the seed by passing them between two wheels or rollers called a stamping mill, and a system of winnowing blows away the loosened or broken parchment. The seeds are next passed through sieves of different degrees of fineness to separate the broken beans from the whole ones or the small from the large; sometimes they are picked over by hand, and are then ready for packing in bags or casks for shipment. In Brazil, where coffee cultivation was commenced in 1774, the plant has taken well to the native soil and climate. It is, however, within a period of eighty years that anything like a systematic

TEA, COFFEE, AND COCOA.

cultivation has been established. It is said that the best conducted plantations in Brazil are owned and managed by foreigners, for the most part English, French, and Belgian. In the formation of new plantations, the Brazilian method is to put in young plants which are to be obtained in unlimited quantities from old plantations. This is usually done when the plant is about two years old; if planted in good soil it produces coffee in the fourth year, and in the fifth begins to bear regular crops, the average yield being from $1\frac{1}{2}$ lbs. to 3 lbs. per tree. The trees continue bearing for many years, and some trees forty years old are known to have yielded good crops of berries. The picking commences in July, and in the low lands finishes in August, while on the hills, or where there is shade, the season is continued till September. Amongst other American sources of coffee may be mentioned Costa Rica, Venezuela, Ecuador, Guatemala, in all of which coffee is grown to a considerable extent.

The small Island of Dominica at one time was the seat of a very successful coffee cultivation, exporting it to the United Kingdom to the extent of from 4,000,000 lbs. to 5,000,000 lbs. annually. Owing to disease of the plants and other causes, the cultivation of coffee a few years since had so much diminished that the island scarcely grew sufficient to supply its own wants. The cultivation of the plant is now again being restored.

With regard to Ceylon, which, notwithstanding the adversities the coffee cultivation has experienced, that island must always be associated with coffee growing. It is uncertain when the plant was first introduced, though it is considered to have been due to the Arabs before the invasion of the island by the Portuguese. Its cultivation, however, is attributed to the Dutch, about the year 1690, after they had introduced it into Java. Sir Edward Barnes appears to have been the first to start coffee cultivation on a large scale, by planting a large estate in 1825, which is still under cultivation. As a proof of the importance of coffee growing in Ceylon some ten or fifteen years back, it may be mentioned that one estate under actual cultivation contained no less than 1,986 acres of land.

The clearing of the ground for coffee planting is an operation of no small magnitude. Big trees come down with a crash, bamboos and all other kinds of vegetation so well known in a tropical jungle follow; about a month after the felling and lopping the whole clearing is set fire to. If the fire has not sufficiently cleared the land, the remaining timber and branches are brought together, cut up, and piled in heaps for another fire. It will be unnecessary to give details of the succeeding processes of planting (Plate 12), weeding (Plate 13), picking (Plate 14), &c. It will suffice to say that, in planting, the distances allowed between the plants vary

TEA, COFFEE, AND COCOA.

from four to six feet, which are regulated by the nature of the soil, situation, climate, and elevation; the aim being to allow sufficient space for the proper development of the plants. On the subject of shade trees a good deal of diversity of opinion exists. Some planters contend that this kind of protection is absolutely necessary, especially in hot climates. The plants mostly recommended for this purpose are the jack (*Artocarpus integrifolia*), the loquat (*Eriobotrya japonica*), and bananas and plantains. Pulping, drying (Plate 15), and the preparation of the bean for market, of course, follow the gathering, but these have been briefly described before, and though the details vary in different countries the operations are practically the same, the desired result being a fine plump bean or seed of a bluish green colour, a tint that in raw, or so-called green coffee, changes to a brown with age. It is, however, somewhat remarkable that though this bluish green colour is a *sine quâ non* with coffee intended for the English market, the American prefers it with a brown tint. The writer was recently informed by a coffee planter in Sumatra that all the coffee shipped from thence to America was cured with this special object in view. The various kinds of coffee, however, known in the British market have each their distinguishing shape and tint, a few words upon some of which may be of interest. It is well known that the various sorts of coffee imported into Europe differ considerably in quality, flavour, shape, and colour. Mocha coffee, though a valuable kind, varies to some extent in itself, but the berry is always more or less globular in shape, and not flattened on one side as in most other coffees. When roasted the seeds have a strong, aromatic, agreeable, and very characteristic odour. The rounded form of seed in Mocha coffee is due to the fact that one seed only is developed in the fruit instead of two, as is usually the case, consequently the seed is not flattened on one of its sides by compression with the other. The Jamaica coffee is of a medium size, somewhat oblong and smooth to the touch, and of a greenish blue colour. It has a strong, agreeable smell, and excellent flavour. The Ceylon berries are of irregular sizes, and sometimes of a spotted dirty cream colour. The terms "plantation" and "native" coffees, as applied to Ceylon berries, are distinctions arising from one being the cultivated coffee of the estates of the planters, which are better attended to and prepared for market, while the other is that grown in a wild or careless manner by the natives about their dwellings, and more rudely prepared. Amongst other kinds may be mentioned Java, East Indian, Costa Rica, Bourbon, &c. It is a popular notion that the difference in quality, aroma, and flavour in the various kinds of commercial coffee is due to climatic and local causes. A practical planter, writing on the subject, says:—

TEA, COFFEE, AND COCOA.

The more or less advanced state of maturity to which the berry is allowed to attain before picking, and more particularly still the degree of dryness, and the longer or shorter period of time for which it is kept before being sent into the market, exercise a most powerful influence upon the quality and flavour of the article. Berries gathered before they have attained maturity, though they may be perfect in colour, will always have a raw herbaceous taste. If the drying berries are heaped too thickly or closely they are apt to heat, and to contract an unpleasantly bitter and harsh taste and a disagreeable smell. This will frequently occur also where artificial heat is had recourse to to expedite the drying; keeping tends to cure these serious defects in coffee. There are instances on record where coffee of a most disagreeable flavour and smell has been brought near perfection by being kept for some years in a dry loft, and though it may be going too far to assert, as has been by some high authorities on the subject, that the worst coffee produced in the West Indies will in a course of years, not exceeding ten or fourteen, be as good, parch and mix as well, and have as high a flavour as the best we have now from Turkey, still there can be no doubt that long keeping will most materially improve the quality of even the worst sorts. Perfect dryness and moderate warmth are necessary conditions for the preservation of coffee.

On the subject of shipment, Mr. Hull, in his work on "Coffee Planting in Southern India and Ceylon," makes the following remarks:—

The general cargo in a ship's hold steams and sweats, and as the deck is airtight the steam cannot escape and it becomes condensed on the top of the cargo, the top bags getting damp. This discolours the coffee beans, which become of a grey, mottled hue, and are thus described as "country damaged." This cannot be covered by insurance. It is therefore necessary that all ships carrying coffee should have wooden tubes about four inches square inside, perforated with holes, running from the keel to, say, four inches above the deck, to allow the escape of the evaporation and gases. In bad weather the top of these tubes can easily be plugged up. Coffee in a well-ventilated ship will lose about half per cent in weight, but its quality will be superior to the coffee which has been carried in ships having no ventilation. In a ship badly ventilated the coffee generally gains half per cent in weight, but loses colour, and consequently in value.

The coffee-producing countries of the world have considerably altered during the past quarter of a century, due in no small measure, as we have already hinted, to the spread of the coffee leaf disease (*Hemileia vastatrix*) in the Ceylon and Indian plantations some twenty years ago. In the West Indies, also in Dominica, Jamaica, and Demerara, the once prosperous coffee plantations had been devastated by attacks of the white fly (*Cemiosoma coffeellum*) which, together with exhaustion of the soil and the adoption of other more immediately but not lasting remunerative cultures, brought about a series of troubles not easily overcome. Coffee in nearly every part of the world seemed under a special ban. At such a juncture, as might be supposed, a new kind of coffee that would at once present such characters as were attributed to the Liberian kind was readily taken up by the bewildered planters. In 1872 this new kind of coffee was first introduced to the Royal Gardens, at Kew, by Sir J. Pope Hennessey, the then Governor of the West African Settlements.

TEA, COFFEE, AND COCOA.

These plants, however, did not survive, but in 1874 and 1876 large supplies of seeds were received direct from Liberia, from which plants were raised and distributed from Kew to nearly all the tropical botanical gardens.

Liberian, or Monrovia, coffee is a distinct species from the older established Arabian kind, and is known to botanists as *Coffea liberica* (Plate 16). It is a native of Upper and Lower Guinea, and was cultivated on the West Coast of Africa in several localities before it became known in Europe. Liberian coffee was supposed to have many advantages over its better-known relative, for while the successful cultivation of the Arabian kind is restricted to hilly or mountainous districts, the Liberian coffee, on the other hand, being a native of the comparatively low hills of West tropical Africa, is suited to conditions of greater heat, and can be successfully cultivated in localities that are quite unsuited to the Arabian sort; moreover, Liberian coffee, being a much more robust growing plant, was supposed to be disease proof. As a commercial article Liberian coffee has not proved so valuable as was at first expected, and the cultivation, though widely distributed, has not become general; nevertheless, two samples received in 1888 that were grown in Malacca, and submitted to a well-known house in Mincing Lane, elicited the report that one sample was very good, bold, clean, well prepared, and the best that had up to that time been seen, and was valued at about 75s. per cwt. The second sample was in the parchment, and of an inferior quality, having apparently been over-dried. The conclusion arrived at was that in consequence of the unusual thickness of the parchment of the Liberian coffee it is not desirable to ship it to Europe in that state. Amongst other countries that have during the past six or seven years pronounced in favour of the Liberian kind over Arabian may be mentioned Dominica, British Guiana, Java and the Malay States, Perak, Mergui, Rangoon, &c.

In Trinidad, which is not a coffee-producing country, some attention was directed to the subject of introducing both the Arabian and Liberian kinds for cultivation between the years 1875 and 1878. Plants were distributed from the Trinidad botanic gardens to planters in the island. The plants grew and bore fruit well, and Trinidad coffee was amongst the exhibits from that colony in the Colonial and Indian Exhibition of 1886. The report upon them was not, however, entirely favourable, more perhaps due to want of careful picking and preparation than anything else. In 1888 three samples were received at Kew from Trinidad under the respective names of Creole, Hybrid Mocha, and Mocha. Upon submitting these to the opinion of experts the following report was obtained:—

Hybrid Mocha, of good liquor and flavour, the shape of the berry approximating to long berry Mocha, value 85s. per cwt. Mocha, of indifferent liquor

TEA, COFFEE, AND COCOA.

out fair flavour, very small berry, similar to small East India, value 72s. Creole, fair liquor, ordinary flavour, similar to Central American, value 60s. per cwt. The berries all roasted well, showing that they were well prepared and ripened.

From this favourable report it would seem that there is a future for coffee culture in Trinidad. Whether, however, there is likely to be a necessity for increasing the area of coffee production in any part of the world is a question that cannot at the present time be answered. It is certain that the demand for coffee in England during the last three or four years has not increased, but on the contrary the official returns show an unmistakable diminution. It is worthy of note also that the imports from Ceylon were considerably less in 1891 than they were in 1890; and while those from Brazil have also been decreasing, those from Central America have been steadily creeping up. The following are the figures from the Board of Trade Returns:—

COUNTRY.	1889. cwt.	1890. cwt.	1891. cwt.
Ceylon	56,595	69,357	64,699
Other British Possessions	182,565	192,981	114,522
Brazil	382,423	222,275	151,188
Central America	223,810	224,428	240,624
Other Countries	195,213	155,612	156,986
Total Imports	1,040,606	864,653	728,019

When the estimated value of the coffee imports into the United Kingdom amounts, as they did in 1891, to £3,442,736, the importance in the trade and commerce in this one article is at once apparent.

The causes of the diminution in the demand for coffee in this country have been variously stated, but to the system of adulteration to which coffee has been subjected, especially in past years, is generally attributed the failure of this beverage to maintain a foremost position in public favour. We are, however, inclined to think with a writer in one of the daily papers some few months since, that the real reason is the imperfect knowledge of the ordinary English servant, or housewife, in the proper methods of brewing or infusing the beverage. The writer says:—

It was imagined during the coffee palace craze that the British workman would be enabled to obtain a really superior article at the same price he had been in the habit of paying for an inferior. But he soon discovered that it was a case of great promise and little performance; the awful concoction usually sold as coffee at working-class resorts is not one whit better than it used to be, if not rather nastier. The materials may be tolerably good, but the barbarous method of brewing would ruin the finest Mocha. It is the same in working-class homes, the housewife has some notion of how to prepare a cup of fairly palatable tea, but coffee is beyond her skill, and she accordingly sets her face against its introduction. It is a pity

TEA, COFFEE, AND COCOA.

that this should be the case; well-made coffee has undoubtedly a more sustaining and strengthening effect on manual toilers than the rival beverage, while the heat it imparts to the blood comes in very profitably on cold winter mornings.

The fact is that half the battle in preparing good coffee lies in the choice of the material, first, of course, in the quality of the coffee bean itself, and next in the care exercised in roasting. Coffee should be gently roasted at a temperature of from 435 deg. to 440 deg., and great care taken that it should not be burnt. In the process of roasting a chemical change takes place in the bean, which before was hard or bony, without flavour or odour; the effect of heat is to produce the well-known aroma which makes coffee valuable. Coffee should never be roasted long before being used, neither should it be kept long in a ground state. In the process of roasting each seed increases in bulk to nearly twice its original size, while it loses from 15 to 20 per cent of its weight. The properties of coffee are easily extracted by water, so that it is not necessary that the berry should be ground to a fine powder. Quite as good coffee, or perhaps even better, can be prepared from a coarsely-crushed bean than from a finely ground one. In Eastern countries, where the people know how to make good coffee, the berries are mostly crushed or bruised in a mortar. Only sufficient should be ground for each making, or if it is necessary to keep any quantity ground, it should be kept in a very dry place in a wooden box or porcelain jar, as nearly as possible airtight, and away from other articles whose flavour or odour it might take up.

The following instructions for making good coffee have been given by one who may be considered an authority on the subject:—

To every half-pint of water allow half-an-ounce of coffee powder, have your kettle of water boiling, put the necessary quantity of powder into the coffee pot, and pour in as much water from the kettle as you require; set the pot on the fire for a few seconds, but on no account let the contents boil up, then pour about half-a-pint of the liquor into a cup and pour it back again into the pot and stand it on the hob or on the fender to settle. If these directions have been properly followed there will be, in three or four minutes, a pot of coffee as clear and well-tasted as anyone could wish to drink. Should it be too strong you have only to use less of the coffee powder. All the goodness is extracted with the first boiling, and those who wish to drink good coffee must never boil the same grounds a second time.

The Turkish mode of preparing coffee is by putting the bruised or ground coffee in a small brass or copper saucepan and pouring a small quantity of boiling water upon it, and after being allowed to simmer for a few seconds it is poured into small cups and drank without refining or straining. Coffee thus prepared, to an unaccustomed palate, is not agreeable, but the taste soon becomes used to it. The author of "Three Years in Constantinople" says:—

TEA, COFFEE, AND COCOA.

A well-made cup of good Turkish coffee is indeed the most delectable beverage that can well be imagined, being grateful to the senses and refreshingly stimulant to the nerves. Those who have long resided in the East can alone estimate its merits.

Regarding the action of coffee upon the human system, it may be briefly summed up that in moderate quantities it stimulates the stomach gently, and the nervous system decidedly without exciting the circulation too much or producing any narcotic impression on the brain. The astringent action of coffee is much less than that of tea, and consequently it does not, like tea, produce constipation. Coffee may rightly be considered an agreeable, stimulating, soothing, and refreshing beverage. Its immoderate use, however, is said to produce nervous symptoms, as anxiety, tremor, disordered vision, palpitation, and feverishness.

Besides the use of the seed of the coffee the leaves of the plant, when dried and roasted, have a similar appearance to ordinary tea and analogous properties to those of coffee, and are used for making a beverage in Sumatra, though it is by no means so agreeable as either tea or coffee. Any notice of coffee would not be perfect without a reference to chicory, which at one time was so largely used as an adulterant that it eventually became, to the taste of many persons, a necessary adjunct to the flavouring of coffee. The plant known as chicory or succory belongs to the natural order *Compositæ*, and is an ally to the common dandelion. It is a native of this country and is found wild on roadsides, chiefly in chalky districts in the South of England, and is easily recognised by its bright blue flowers. The root is spindle-shaped, somewhat like a parsnip, of a whitish or greenish yellow colour. In its wild state it is very woody, but under cultivation it becomes more fleshy. On the introduction of chicory into Great Britain a nominal duty of 20 per cent was levied on it, which was afterwards increased, on the representations of coffee planters, to the same rate as the duty then payable on British plantation coffee. The high duty thus put on foreign-grown chicory soon led to its cultivation in England; but so little was known of the plant that the farmers required the rent to be paid in advance for the use of their land. In 1853, chicory was grown to some extent in Kent, Surrey, and Essex. As the demand for the root increased the cultivation spread into Bedford, Norfolk, Suffolk, Cambridgeshire, Leicestershire, Cheshire, and Yorkshire. At this time the root realised £20 per ton as dug, and £50 per ton ground—a price that soon fell as the supply increased. In 1854 the admission of foreign-grown chicory, free of duty, led in a great measure to the abandoning of the home growth. The largest imports of chicory to this country come from Belgium and Holland. Chicory, like coffee, has no aroma in its fresh or green state, but

TEA, COFFEE, AND COCOA.

it is produced in the process of roasting. When ground it is the most generally used of all coffee substitutes, and is still in very great demand in Continental Europe. The imports to this country have been decreasing during the past few years, and amounted in 1891 to 119,655 cwt. A peculiar kind of spurious coffee has within the past two years made its appearance in America, and was described in the *New York World*, and reproduced in the *Board of Trade Journal* in 1890. It is such a striking illustration of the perseverance of human ingenuity in the cause of adulteration that we are tempted to give it in its entirety:—

The average bulk of the genuine coffee imported into the United States is 8,000,000 bags, or 130,000,000lbs. per annum. Experts estimate that fully 20 per cent of the coffee sold to consumers is bogus, which raises the consumption to 216,000,000lbs. Taking 30 cents per pound as the average retail price, the people of America pay 65,000,000 dollars every year for this one article of food, of which 13,000,000 dollars is paid for roasted and ground beans, peas, rye, or a manufactured article in no way resembling the Brazilian berry. To this must be added the production and sale of what are called "coffee substitutes." So extensive is this business that it is quite safe to say that consumers pay 12,000,000 dollars for what they believe to be cheap coffee. This raises the total expenditure to 77,000,000, and it represents a sale of 276,000,000lbs., for the substitute coffee usually sells at 20 cents per pound. It will thus be seen that 96,000,000lbs. of bogus coffee are sold in the United States every year, and some estimates place it at 120,000,000lbs. Taking the lowest figures, 25,000,000 dollars are received for substances which can be profitably placed on the market at six cents per pound. The manufacturers therefore receive 6,000,000 dollars for these goods, while retailers gain a profit of 18,000,000 dollars. There are two kinds of bogus coffee, an imitation bean and the ground article. The bean is the most difficult to produce, and it is only recently that actual success in this direction has been attained. The bogus bean must not only look like the genuine berry when raw, but it should be capable of taking a proper colour when roasted. A very good specimen is now manufactured in Philadelphia and Trenton, being composed of rye flour, glucose, and water. The soft paste is then moulded and carefully dried. To the eye of an expert the presence of this imitation is easy of detection, and it cannot be used to any great extent among wholesalers, but when coffee goes to the retailer adulteration begins. Sometimes the retailer is deceived, but nine times out of ten he is the one who introduces adulteration. The ground article is very easily produced of a proper colour, and they infuse an aroma by strong decoctions of coffee essence. When mixed with real coffee even the expert eye and tongue may be deceived, while to the ordinary consumer it seems to be the genuine product. Bogus coffee beans have only a slight resemblance to the natural berry, for though they possess proper form, the cicatrice on the inner face is too smooth. Then, again, the grey colour of the raw bean is not quite up to the mark; but when these manufactured beans are roasted with 5 per cent of genuine coffee they find a ready sale. These bogus beans can be made at a cost of 30 dollars per 1,000 lbs., and when mixed with 50lbs. of pure coffee the whole 1,000lbs. cost 37.50 dollars, or 3 $\frac{3}{4}$ cents per pound, so that a profit of nearly 100 per cent is the result. There are any number of "coffee substitutes," the Hillis variety being the most successful. This company is already manufacturing 10,000lbs. per week, it being sold by the barrel to retailers in nearly all the New England, Middle, and Western States. The profits of this concern are supposed to be 300 dollars per day, and its operations have reached such a scale that the stockholders were recently offered nearly 1,000,000 dollars for their secret and business, but it was declined.

TEA, COFFEE, AND COCOA.

No one accustomed to coffee drinking would imagine that a decoction of this stuff was like either Mocha or Rio, but when mixed with four times its bulk of genuine coffee only an expert could detect the imposition. The manufacturers of these coffee substitutes claim that they are not violating the law of adulteration of food products because they do not sell their goods as coffee but simply as a substitute. While this may be true it does not apply to the retailer, who mixes the bogus stuff with good coffee and sells the whole as the genuine article. Though manufacturers may be beyond the penalties of the adulteration law they should be suppressed, for without them coffee adulteration by retailers would be impossible. When it is remembered that American people are compelled to pay 25,000,000 dollars for ingredients that can be manufactured for one-fifth the sum received by coffee growers, the necessity for the suppression of this nefarious trade is apparent. Oleomargarine cannot be sold as butter, neither should "coffee substitutes" be made to masquerade under the name of Java, Mocha, or Rio.

In March, 1891, the *Board of Trade Journal* again drew attention to the manufacture of artificial coffee beans, but this time it was in Germany that their manipulation was proposed to be started. An Imperial decree was issued forbidding the making and sale of the machines specially invented for the production of these false coffee beans, and it was stated that all the machines that had been made had been confiscated—an action highly creditable to the German Government.

COCOA.

THE word cocoa, as here spelt, is one about which much confusion often exists, not only in commercial circles, but also amongst botanists, planters, and the public generally. Under the same spelling the word is applied to the cocoa-nut palm (*Cocos nucifera*), which furnishes coir for mats and brushes, cocoa-nut kernel for confectionery and biscuit making, and copra for the expression of oil for soap and candle making. By a slight alteration—namely, *coca*—we have the well-known Bolivian stimulant, the leaves of *Erythroxylon coca*, the active principle of which has become so generally used as an anæsthetic. In trade, however, we sometimes find the fruit of the cocoa-nut palm spelt *coker-nut*, though this is by no means general.

It is with the fruit, or rather the seeds, of the cocoa or chocolate tree (*Theobroma cacao*) that we have now specially to deal, and we may here say that the attempts recently made by botanists to substitute the specific name of the plant *cacao* for that of cocoa has much to commend it, for the term is not only a correct one but it is almost universally used by planters. To alter a commercial name, however, is not an easy matter, and to make ourselves better understood we have in the foregoing remarks used the general trade name of cocoa.

The tree, which is an evergreen of a free branching habit, grows to a height of from 20 to 30 feet. It belongs to the natural order

TEA, COFFEE, AND COCOA.

Sterculiaceæ, which itself is allied to the mallow family. The leaves are stalked, from 8 to 9 inches long and about $2\frac{1}{2}$ inches broad. The tree bears numerous small, thickly-clustered flowers on the old wood of the branches and trunk in the position of the axils of fallen leaves. These flowers are of a saffron colour, or sometimes of a pinkish tinge, but have no scent. A large number of the flowers never attain to maturity, consequently the yield of fruit is much less than would be expected from the appearance of the tree when flowering; indeed, one fruit from each cluster of flowers is the average. These fruits when fully grown are from 5 to 10 inches long, and vary in shape from an oval to an elongated pear form. Some kinds are distinctly marked by shallow furrows and bluntly rounded ridges; they vary in colour when ripe, according to the variety, some being golden yellow, others greenish yellow, bright red, or dark purple. The fruit itself is thick and fleshy, and contains five cells in which the seeds, in number from 20 to 40 or sometimes nearly 100, are closely packed (Plate 17). Each seed is enveloped in a soft, sweetish acid pulp, immediately inside of which is the husk or shell of the seed, of a reddish brown colour, and it is in this form that cocoa seeds come into the market. With a plant so long under cultivation there has sprung up, as might be expected, a large number of varieties. In Trinidad and Grenada there are as many as twelve or thirteen varieties under cultivation. The cultivated kinds of cocoa may, however, be broadly divided into two sorts, known as *Criollo* and *Forastero*. The former was in the early days of cultivation almost exclusively grown in Trinidad, but it was discarded during the last century in consequence of the plants being attacked by a disease, and the *Forastero*, which is more hardy and robust, became generally grown. The celebrated Caracas cocoa is said to be derived from the *Criollo* variety.

The knowledge of the value of cocoa as an article of food is by no means a recent discovery. When Cortes invaded Mexico, more than 300 years ago, he found the inhabitants cultivating the cocoa tree. Indeed, it is said that it was the only plant of which any care was taken, the people regarding it as the most valuable product of their country. It is said that when Cortes sent to Charles V. samples of the principal products of the New World, cocoa was included as the most healthy of all the beverages which Spain obtained by its conquests, and it was soon afterwards introduced into Spain, from whence its use speedily spread into other parts of Europe; but the English probably did not become acquainted with it till quite a century or more afterwards. England for many years continued to import all the chocolate she consumed in its manufactured state; but about the commencement of the eighteenth century its manufacture was begun in this country.

TEA, COFFEE, AND COCOA.

With regard to the cultivation of the cocoa tree at the present time the first thing a planter has to do in selecting his site is to see that it possesses the requisite soil and climate, an equable and regular rainfall, and some protection or shelter from prevailing winds. If it is necessary to plant shade trees, they should be put in the ground either before or at the same time with the cocoa plants, and close to them if they are intended to provide temporary shade for a few months. In the West Indies, bananas and plantains are put one between each cocoa plant and these last for two or three years, while the permanent shade trees, which are for the most part hard-wooded plants, are placed at distances of about 40 feet, and at the end of three or four years will remain the only occupants of the ground besides the cocoa. In consequence of the cocoa plants being planted so far apart there is ample space for the cultivation of many useful plants between them, which can be done without impoverishing the ground during the first two or three years; they also save much weeding and keep the ground cool and moist. In clearing the land for cultivation, care should be taken to leave, where possible, belts of trees as a protection against prevailing winds. If artificial belts are planted, trees of economic value should be selected so as to give a return when cut or cropped.

Two systems of planting are adopted, either by seeds or by young plants from the nursery. In good situations the cocoa tree commences to bear fruit in three or four years, but sometimes individual trees will yield fruit at the age of two years. The trees are better and stronger if they are not allowed to bear until the fourth or fifth year. A cocoa plantation should be in good bearing between the sixth and ninth years, and in prime condition from the twelfth year. A thoroughly established cocoa plantation is said to require less labour and expenditure than almost any other branch of culture, and it is computed that about twenty hands are sufficient to work a plantation of 300 acres, in full bearing, including picking and curing the crop. Although the tree is in fruit more or less all the year round, the seasons when the crops are most abundant are in May and June, and October and November. The ripe fruits are known by their colour or by the hollow sound they give off when tapped, the seeds at the ripe stage being somewhat loosened from the outer shell. The upper fruits are cut off by an instrument called a cocoa hook, and the lower ones by a cutlass. A great deal of care is required in separating the stalk from the tree; a small portion should be left on, so that it eventually heals up and falls off spontaneously, leaving the "eye," as it is called, uninjured. The fruits as they are gathered are left in small heaps, near the base of the trees (Plate 18), when they are collected into larger heaps and left for a day, after which they are broken or opened by a man with

TEA, COFFEE, AND COCOA.

a cutlass, and the seeds scooped out by women with a kind of wooden spoon on to some plantain leaves spread upon the ground, or into baskets (Plate 19). The next process is fermenting, which is generally known as sweating, and to this operation a good deal of the commercial value of the cocoa depends. The seeds or beans are closely packed in barrels or boxes covered with plantain leaves, and left for from four to seven days, during which time fermentation is proceeding. After this period the beans are taken out, dusted with red earth and rubbed between the hands for some time, which removes the mucilage and gum that may be attached to them. They are finally spread out on trays to dry (Plate 20) before being packed for shipment in bags, each containing about 112lbs., and it is in this condition that cocoa arrives in this country and finds its way to the cocoa and chocolate manufactories. Until comparatively recent years the cultivation of this important plant has been confined almost exclusively to Tropical America, Guatemala, Venezuela, Mexico, the United States of Colombia, Guiana, Trinidad and Grenada. Recently, however, the produce of Ceylon has attained to very great importance, not only in quantity, but particularly as to quality. This last is accounted for from the fact that the kind of cocoa first introduced into Ceylon and the East Indies at the beginning of the century, probably by the Dutch, was the *Criollo* kind, and if the cocoa now received from Ceylon is derived from that kind it would be of exceptional quality. With regard to appearance, also, there is this difference in the preparation of the Ceylon beans, that after they are fermented the pulp is carefully washed off, and when properly dried a very clean bright-looking bean is the result. Soil and climatic conditions are also said to be favourable to Ceylon cocoa; and another advantage that it possesses, from a manufacturer's point of view, is that in consequence of the more perfect cleaning of the shell there is less loss in weight.

The keen competition for Ceylon cocoa, and the high prices that it now commands, is probably due to the fact of the demand exceeding the supply, and that the crop is shipped almost exclusively to the English market. In 1889, Ceylon produced only 17,164 cwt., while Trinidad gave 125,000 cwt.

The returns of imports into the United Kingdom do not give the quantities brought from individual countries, but from a comparison of the totals for the past three years, which stand as follows:—1889, 26,735,974lbs.; 1890, 27,866,761lbs.; and 1891, 31,212,442lbs., it will be seen that the consumption of cocoa is increasing steadily in this country; and it is a well-known fact that though the cultivation in Ceylon is so comparatively recent, it has already attained a very important position both as to the quantity exported and the quality of the produce.

TEA, COFFEE, AND COCOA.

When the cocoa beans arrive in this country, packed in the bags before alluded to, they soon find their way to the several cocoa and chocolate factories. Here they are very carefully roasted in revolving cylinders over open coke fires. The care required is to prevent the seeds from burning, but at the same time to ensure that every seed is thoroughly roasted. After roasting, the outer skin or woody shell is readily broken, and is winnowed away by machinery, the seeds or cotyledons easily break up into pieces and thus form cocoa nibs. In the early days of cocoa consumption in England, cocoa nibs was the only form in which to obtain cocoa for the preparation of the beverage, which was made by boiling the nibs for a quarter of an hour or so, and drinking the clear infusion after being sweetened to taste. Cocoa nibs as such, are, however, very little used at the present time. The preparation is somewhat tedious, and in these labour and time-saving days a prepared article which can be got ready for consumption in a very few minutes always finds favour, and thus the door has been opened for the prepared and soluble cocoas which are now so general, and which in the cheap kinds are so often largely mixed with starch, flour, sugar, &c., so that cocoa itself forms a very small portion of the preparation. There are, however, exceptions to this rule, and we may, if we are prepared to pay a reasonable price, obtain a pure and genuine article which at the same time is portable and convenient for ordinary use; such may be found in the so-called "cocoa extracts" and "cocoa essences."

Naturally, cocoa beans, or seeds, contain about half their weight of oil. It is a yellowish, opaque substance, about the consistence of tallow, and has a bland, agreeable taste and a pleasant chocolate-like odour. It breaks readily, and has a dull, waxy fracture. It has the advantage of not becoming rancid by exposure to the air, and its chief constituent being *stearin* it is one of the best fats for the preparation of stearic acid. It is generally known as cocoa butter, and in consequence of its sweetness and freedom from rancidity it is largely used in medicine in the preparation of suppositories as well as in ointments, cosmetics, coating pills, and various other purposes. This cocoa butter is expressed from the seeds by the cocoa makers by submitting them to hydraulic pressure. As it runs from the canvas bags in which the pulped seeds are contained it is of a dark brown colour, but in cooling it sets into solid blocks and becomes quite white.

It will be unnecessary to detail here the subsequent processes of the preparation of cocoa and chocolate, as this has been done in most of the periodicals of late years. It will suffice to say broadly that after a certain portion of the oil or butter has been extracted, the paste, to which the seeds have been reduced by crushing them

TEA, COFFEE, AND COCOA.

between heated stones or rollers, is mixed with sugar, vanilla, cinnamon, cloves, or other spices to flavour it, and is moulded into the various forms we now see it in the retail market. Regarding the value of cocoa and chocolate as a beverage, we do not find them so refreshing or stimulating as tea and coffee, but they are more nutritious in consequence of the oil the seeds contain. The active principle or alkaloid is known as *Theobromin*, and resembles, both in its chemical characters and effects, *thein* and *caffein*, the alkaloids respectively of tea and coffee.

We cannot conclude this notice of cocoa without pointing with satisfaction to the increase in the consumption in this country, which in 1820 amounted only to 267,000lbs., but which has now reached to upwards of 21,000,000lbs. per annum; and the cocoa industry, besides supplying a wholesome beverage, gives healthy employment to a very large number of hands.



Plate 1.

BRANCH OF TEA (*Camellia Thea*) IN
FLOWER AND FRUIT.



Plate 2.

TEA CULTIVATION—PLANTING A NEW CLEARING.



Plate 3.

TEA CULTIVATION—PRUNING.



Plate 4.

TEA CULTIVATION—PICKING OR PLUCKING.



Plate 5.

TEA CULTIVATION—BRINGING IN AND WEIGHING THE LEAF.



Plate 6.

TEA CULTIVATION—WITHERING THE LEAVES.



Plate 7.

TEA CULTIVATION—FERMENTING THE LEAVES.



Plate 8.

TEA CULTIVATION—SORTING.



Plate 9.

TEA CULTIVATION—PACKING, SOLDERING, AND MARKING.



Plate 10.

MAKING TEA BOXES.



Plate 11.
BRANCH OF COFFEE (*Coffea arabica*) IN
FLOWER AND FRUIT.



Plate 12.

COFFEE CULTIVATION—TRANSPLANTING COFFEE AT LAS NUBES,
CENTRAL AMERICA.



Plate 13.

COFFEE CULTIVATION—WEEDING AND PROTECTING THE YOUNG PLANTS,
CENTRAL AMERICA.



Plate 14.

COFFEE CULTIVATION—PICKING BERRIES FROM A FULL-GROWN
COFFEE SHRUB, CENTRAL AMERICA.

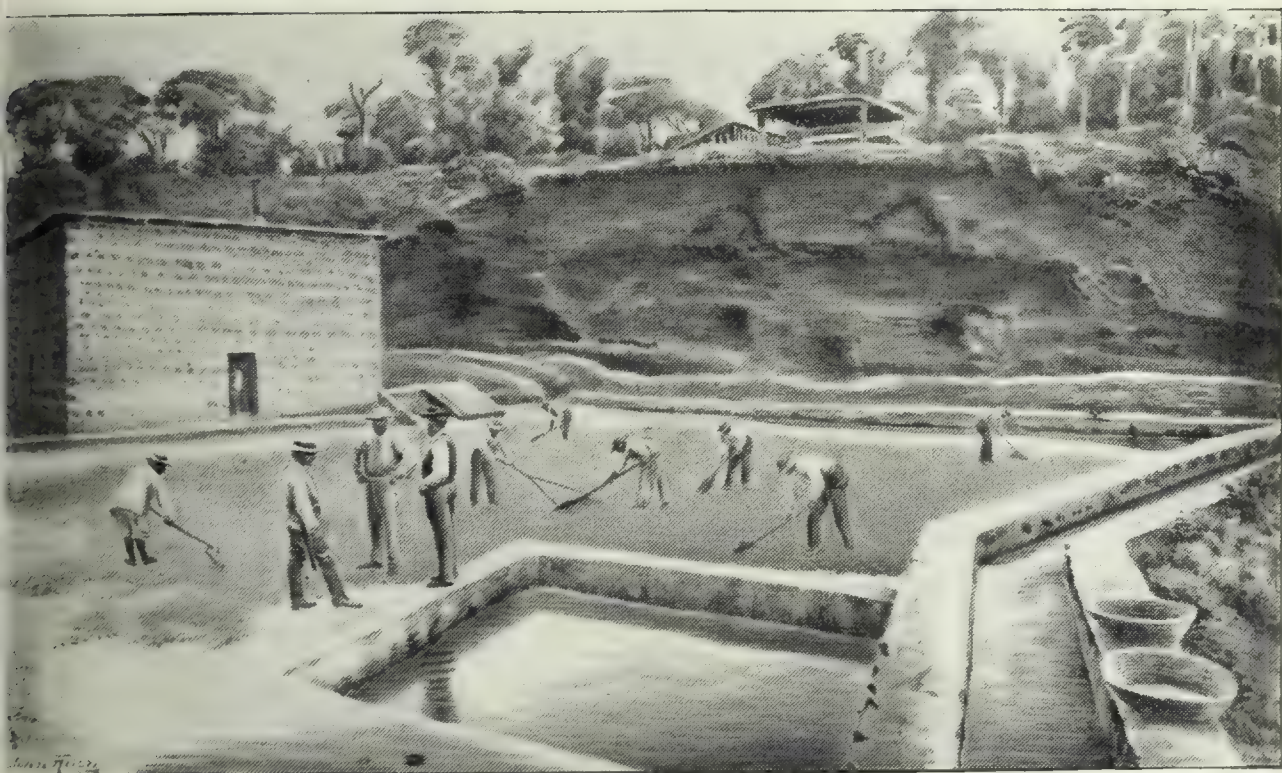


Plate 15.

COFFEE CULTIVATION—DRYING THE BERRIES, CENTRAL AMERICA.

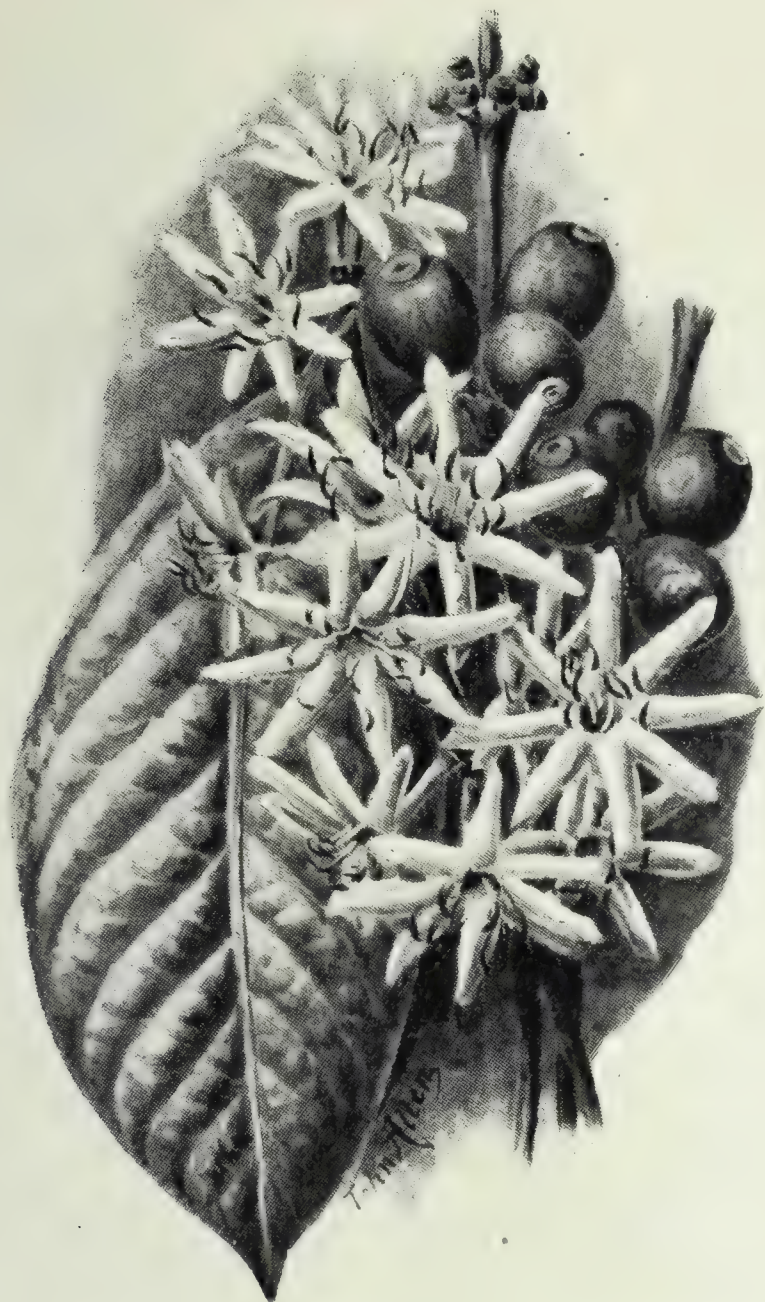


Plate 16.

BRANCH OF LIBERIAN COFFEE (*Coffea liberica*)
IN FLOWER AND FRUIT.

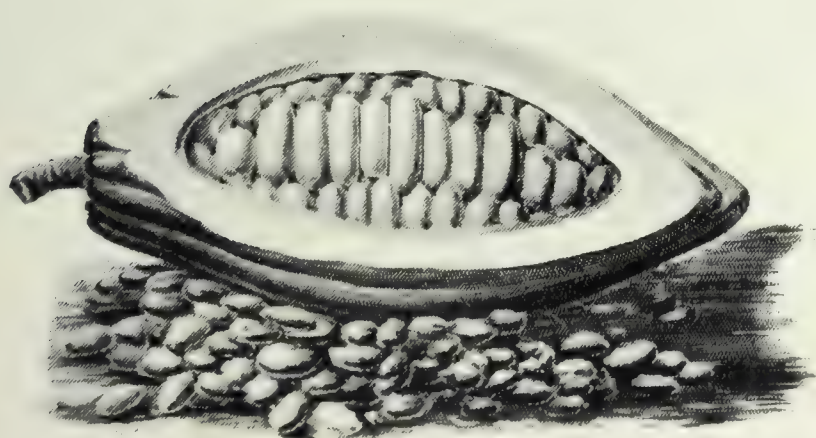


Plate 17.

COCOA POD (*Theobroma cacao*) OPENED
TO SHOW SEEDS.



Plate 18.

GROUP OF COCOA PODS (*Theobroma cacao*).



Plate 19.

COCOA CULTIVATION IN CEYLON—COOLIES EXTRACTING THE SEEDS
FROM THE PODS.

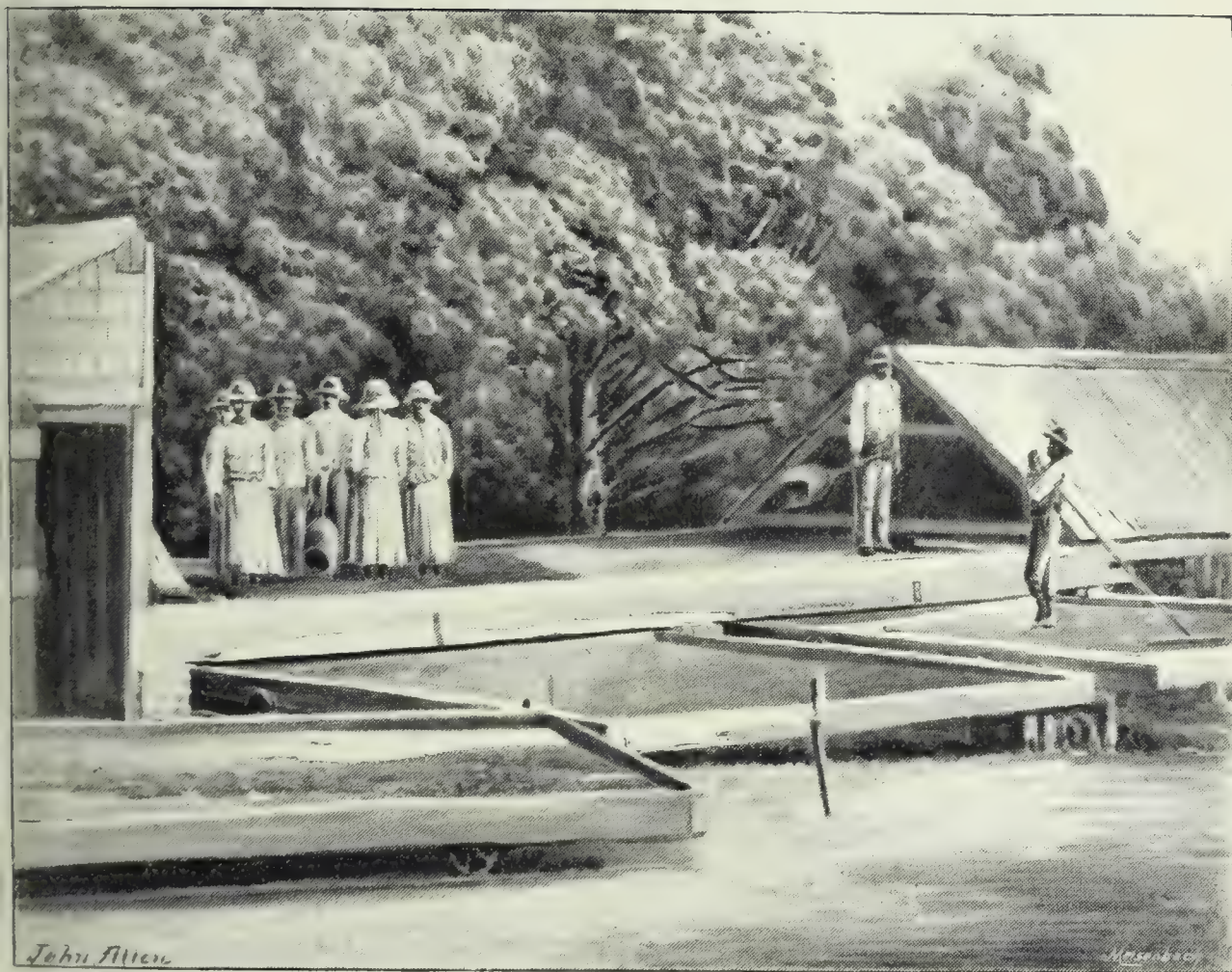


Plate 20.

COCOA CULTIVATION—DRYING THE COCOA SEEDS.

FOREIGN COMPETITION IN THE EAST.

BY HOLT S. HALLETT.

1. **I**N the final report of the Royal Commission on Depression of Trade we were told that the increasing severity of foreign competition was a matter deserving more serious attention at the hands of our commercial and industrial classes; that our supremacy was being assailed on all sides by rival manufacturing nations; and that over-production had been one of the prominent features of the course of trade in recent years. The Commissioners urged that while wages have risen profits have fallen; that this is obviously a process which cannot be continued beyond a certain point; that a time may come when capital will lose all inducement to lend itself to the work of production; and that if the employer is driven from the field, the labourer will necessarily suffer with him.

2. Great changes have been occurring in the world of late years which require close study and consideration in order to form an intelligent judgment as to their probable and necessary results. Fifty years ago two-thirds of the working classes of Great Britain were employed upon agriculture. Now, less than one-fourth are so employed, and more than one-half are dependent upon manufacturing and distributing pursuits. The population of this country is increasing by over 300,000 souls a year. This increase to our population has to be provided for in other pursuits than agriculture. Not only is this the case, but year after year more land is being thrown out of tillage * and more agriculturists, displaced by this cause and by improvements in agricultural machinery, have been driven by necessity into the large centres of population to compete with the industrial and other working classes. These, by rendering the supply of labour in excess of demand, have tended to lower the wages of those already engaged in industries and distribution. According to the census of 1851 and 1881 the population of the rural districts of Great Britain decreased between those years by 400,000 souls. The census of 1891 will probably show a still larger decrease.

3. Looking at the Continent, we find the same excess of births over deaths, the same development of urban population, the same ceaseless rush of displaced agriculturists into the towns and

* Between 1877 and 1891 land under corn diminished from 11,103,196 acres to 9,443,509 acres, and land under potatoes and other green crops from 4,961,091 acres to 4,510,653 acres.

FOREIGN COMPETITION IN THE EAST.

manufacturing districts, and a natural and great development of foreign manufacture, fostered by protective tariffs, long work-hours, and low wages. Not many years ago Italy and Germany were conglomerations of little tax-levying states, strangling their own and each other's trade, and depending chiefly upon agriculture for their means of subsistence. After the great changes, which cemented them into powerful nations, the inland customs' barriers were destroyed; factories and mills sprang up in every direction and gave employment to the surplus labour of the country. Spinning and weaving and other machinery was distributed by us over the Continent, and has gradually developed a competition and over-production that foreigners, as well as ourselves, are suffering from. Every manufacturing nation is now, by actual force of circumstances, engaged in a gigantic struggle, not only for pre-eminence in trade but for very existence.

4. The close of the rebellion of the Southern States in America was the commencement of an era of heavy tariffs in the United States, which culminated in the M'Kinley tariff. These were imposed partly for fiscal reasons, and partly, and in latter years chiefly, for the encouragement of home manufacture. The American tariffs are now so high that, according to Mr. Kennedy, the head of the Commercial Department of the Foreign Office, "it would be morally impossible for America to develop her import duties any further in the case of many articles." At present they vary between 50 and 265 per cent upon articles not on the free list; and the free list includes chiefly raw materials.

5. Between 1877 and 1883, Austria, Germany, France, Italy, Spain, and Russia put heavy duties upon imports; and in 1886, Switzerland threw off her allegiance to free trade and doubled her tariffs. Since then continental tariffs have been tending more and more towards prohibition, and the recent French tariff, particularly in the case of textile yarns and manufactures, is in many cases prohibitive. As we lower our prices in order to maintain our trade the foreign tariffs are raised, and will doubtless continue to be raised until our wares are generally shut out of continental and American markets.

COMPETITION OF THE UNITED STATES IN SOUTHERN AND CENTRAL AMERICA.

6. Seeing that the chief manufacturing nations are determined to foster their industries by excluding rival manufactures from their markets, we are forced to turn for the maintenance and extension of our trade to non-manufacturing and meagre-manufacturing markets where tariffs are either not imposed or have been imposed merely

FOREIGN COMPETITION IN THE EAST.

or fiscal reasons. In some of these markets, notably markets in Central and South America, we are now threatened with exclusion through favour being shown to our protectionist rivals, who are beginning to use the weapon of their home tariffs as a bargaining power to enforce entrance on favourable terms to the markets of neutral countries which have merely a fiscal tariff. The following table shows the reciprocity treaties made by the United States up to June 30th, 1892,* and its exports to these countries for the years ending June, 1891 and 1892 :—

	Treaties in Force.	1891-2.	1890-1.
	Months.	\$	\$
To Brazil	15	18,044,000	16,280,000
„ Cuba	10	16,095,000	10,393,000
„ Porto Rico	10	2,329,000	1,738,000
„ San Domingo	10	865,000	841,000
„ British West Indies	5	3,937,000	3,824,000
„ Salvador	5	493,000	544,000
„ British Guiana.....	3	395,000	430,000
„ Guatemala	1	170,000	146,000

7. The extent of our export cotton trade in countries with which the United States has engaged, or desires to engage, in reciprocity treaties is shown in a table compiled by Mr. Curtis for the Bureau of American Republics. The figures for this country, aggregating £12,318,333, do not include wearing apparel, and those for France omit all references to ready-mades. Mr. Curtis is of opinion that the comparatively limited extent of shipments to Mexico is due to the large output from the native mills. Coarse greys are produced extensively, the natives wearing them. The average consumption of raw material is said to be 26,000,000lbs. annually, much of it coming from the United States. It is only in Mexico that modern mills, equipped with the best English and American machinery, are to be found south of the Rio Grande. Elsewhere, according to Mr. Curtis, “the work is done by hand on antique looms similar to those that were used in the time of Moses.” The United States export of cotton goods in the year ending June 30, 1892, to the following countries comprised 74,581,113 yards of piece goods, against 60,160,008 yards in the year ending June 30, 1891, the increase to Brazil being 4,172,565 yards. In addition to

* The official year in the United States commences on July 1 and ends on June 30, thus stretching into two years.

FOREIGN COMPETITION IN THE EAST.

THE FIGURES ARE IN THOUSANDS OF DOLLARS.

	United States.	Great Britain.	France.
	\$	\$	\$
Mexico	648	2,817	478
British Honduras	33	152	...
Central America	497	2,952	...
Columbia	171	3,523	439
Venezuela	429	2,107	93
Guiana	31	707	34
Brazil	813	24,718	1,724
Uruguay	157	2,423	507
Argentina	476	7,742	2,100
Chili	501	4,332	145
Ecuador	48	715	8
Peru	65	1,831	23
British West Indies	4	346	243
Danish West Indies	14	143	...
Dutch West Indies	72	652	208
Spanish West Indies.....	170	3,268	137
Hayti and San Domingo	748	791	38
	<u>\$4,887</u>	<u>\$59,128</u>	<u>\$6,186</u>

the foregoing it increased its export of cotton goods to Africa by 5,130,039 yards, and to sundry unspecified markets by 4,512,128 yards. Having overstocked the China market, its shipments to China fell from 80,930,000 yards in the year 1890-91 to 65,859,000 yards in 1891-92. In 1890-91 the gross exports from the United States of cotton cloth amounted to 174,500,000 yards; and in 1891-92 it aggregated 183,754,000 yards.

8. Whether the dream of the United States of a custom union comprising the two American continents and the adjacent islands is fully realised—which would deprive us of the large trade we do with those markets—or not, there can be little doubt that every year the American markets will become more difficult for our enterprise, and that American competition in the Eastern markets will increase. The Southern mills in the United States have the advantages over the Northern mills of cotton on the spot, longer work-hours, and comparative cheapness of labour. The cotton mills in Massachusetts are only run for ten hours a day, against twelve hours in South Carolina, and in no Southern State less than eleven hours. A mill in South Carolina turns out, of 4 yards to the lb. sheeting, $43\frac{7}{10}$

FOREIGN COMPETITION IN THE EAST.

yards against 36 yards turned out daily per loom at Lowell, in Massachusetts. The average daily earnings of cotton operatives in the Northern District, according to the Seventh Annual Report of the Commission of Labour, is \$1.17½ (4s. 10¾d.); in the Southern District, 78½ cents (3s. 3¼d.); and on the Continent of Europe, 49 cents (2s. 0½d.). The average wage in an English cotton spinning mill averages 22s. 2d. a week, and in a cotton weaving factory 17s. 10d. a week. The average for the industry may be taken as 20s. a week or 3s. 4d. a day, or about the same as rules in the Southern District of the United States, where the operatives work considerably longer hours than in this country.

INCREASED PRODUCTION OF COAL AND PIG IRON IN THE UNDER-MENTIONED COMPETING COUNTRIES.

9. In considering the probable future foreign competition in the East it will be well to examine our position in relation to foreigners engaged in the coal, iron, steel, and textile industries. To understand the growth of competition in our foreign coal, iron, and steel markets it will be well to compare the production of coal and pig iron in the United Kingdom, Germany, France, and the United States in 1871, with the output of the same countries in 1890. This is shown in thousands of tons in Table No. 1:—

TABLE No. 1.

	UNITED KINGDOM.		GERMANY.	
	1871.	1890.	1871.	1890.
	Thousand tons.	Thousand tons.	Thousand tons.	Thousand tons.
Coal	117,264	181,614	29,273	70,237
Pig Iron	6,600	7,904	1,564	4,524
	FRANCE.		UNITED STATES.	
	1871.	1890.	1871.	1890.
	Thousand tons.	Thousand tons.	Thousand tons.	Thousand tons.
Coal	13,240	25,837	41,384	140,887
Pig Iron	860	1,970	1,706	9,200

10. Between 1878 and 1890 the coal production of Belgium increased from 14,659,724 tons to 20,038,650 tons; between 1876 and 1890 that of Austria increased from 4,855,033 tons to 8,767,888 tons; and in 1889 Italy produced 384,047 tons. The production of pig iron in 1889 in Austria was 608,076 tons; in Russia, 731,774

FOREIGN COMPETITION IN THE EAST.

tons; in Italy, 13,473 tons; in Belgium, 181,526 tons; and in 1890 in Canada, 21,772 tons. Germany, Belgium, Austro-Hungary, and the United States are competing with us in the export of coal.

EXPORT OF IRON AND STEEL MANUFACTURES FROM THE UNDERMENTIONED COUNTRIES.

11. The development between 1880 and 1890 in the export of iron and steel manufactures from the undermentioned countries is shown in Table No. 2, the values being given in pounds sterling:—

TABLE No. 2.

	1880.	1885.	1890.
	£	£	£
*United Kingdom ...	28,390,316	21,710,738	31,565,337
United States.....	1,771,458	1,835,416	2,422,291
Holland	6,748,166	7,372,000	6,650,833
Germany	4,710,300	5,565,650	6,445,200
†Belgium	1,262,560	981,560	1,634,160
†Austro-Hungary.....	2,051,166	926,666	1,713,250

12. Looking at the rapid increase of the coal and pig iron production of Germany and the United States, we may expect to meet a severe competition from them in neutral markets in the near future. The rapid growth of the iron and steel industry in the United States appears from its production of pig iron, which now greatly exceeds that of this country. In 1871–72 it consumed 527,140 tons of foreign railway steel and bar iron, against 692,532 of its own produce. In 1890–91 its consumption of the foreign make had fallen to 115 tons, against 1,874,337 tons of domestic produce, and it exported 15,881 tons. The loss of our former market in the United States has been a heavy disaster for our iron and steel industry.

13. Since 1879 the railway mileage in the United States has nearly doubled, increasing from 86,584 miles in that year to 171,048 miles in 1891. No less than 11,569 miles were opened in 1882, and in 1887 an addition was made of 12,879 miles. Since the latter year the yearly increase of its mileage has been as follows:—6,898 in 1888, 4,221 in 1889, 7,343 in 1890, and only 3,307 in 1891. Its railway system is apparently nearing completion, and in the early future we shall doubtless find it competing fiercely with us in the railway development of South America, Africa, and our Eastern markets—the chief fields still open for railway enterprise.

* Excluding telegraph wire. † Including iron ore.

FOREIGN COMPETITION IN THE EAST.

CONDITION OF TEXTILE INDUSTRIES IN THE UNITED KINGDOM.

14. Since 1871 the population of this kingdom has increased by 6,250,000 souls, or by nearly one-fifth. Every year we are becoming more and more dependent upon our great industries for the maintenance of our vast and rapidly growing population. Our textile industries, accounting in value for one-half of the articles manufactured and partly manufactured which are exported from this country, might be expected in their natural growth to afford employment and means of livelihood for a large portion of the increase. This, however, is not the case. Between 1870 and 1890 our factory operatives only increased from 907,230 souls to 1,084,631 souls, or by less than 3 per cent of the increase to the population. The following table shows the relative importance of the textile industries as affording means of employment, and the increase or decrease in spindles, looms, and in persons employed in the chief of them between the years 1870 and 1890:—

TABLE No. 3.

1870.	Cotton.	Woollen.	Worsted.	Shoddy.
Spinning Spindles ...	33,995,221	2,531,768	1,821,144	133,211
Doubling Spindles...	3,723,537	160,993	310,308	582
Looms	440,676	48,140	64,654	2,690
Persons employed ...	450,087	125,130	109,557	3,816
	Flax.	Hemp.	Jute.	Silk.
Spinning Spindles ...	1,483,335	27,960	109,000	940,143
Doubling Spindles...	66,212	4,351	6,156	190,298
Looms	35,301	107	4,330	12,378
Persons employed ...	124,772	3,150	17,570	48,124
1890.	Cotton.	Woollen.	Worsted.	Shoddy.
Spinning Spindles ...	40,511,934	3,107,209	2,402,922	94,404
Doubling Spindles.	3,992,885	299,793	669,338	691
Looms	615,714	61,831	67,391	2,284
Persons employed ...	528,795	148,729	148,324	4,503
	Flax.	Hemp.	Jute.	Silk.
Spinning Spindles ...	1,134,813	41,724	268,165	846,575
Doubling Spindles...	61,521	11,949	11,874	182,778
Looms	48,714	516	14,107	11,464
Persons employed ...	107,583	10,572	44,810	41,277

FOREIGN COMPETITION IN THE EAST.

In 1890 there were likewise employed 24,838 persons in hosiery factories, 2,583 in hair factories, 3,941 in elastic factories, 16,930 in lace factories, and 1,746 in cocoa-nut fibre factories, making the total number employed in textile factories 1,084,631 persons.

EXPORT AND IMPORT OF TEXTILE YARNS AND MANUFACTURES
FROM AND TO THE UNDERMENTIONED COMPETING COUNTRIES IN 1890,
AND FOR THE UNITED KINGDOM IN 1875 AND 1891.

15. The rapidly increasing export of textile machinery from this country of late years, joined to the manufacture of such machinery on the Continent and in America, has had its natural consequence in the development of foreign competition, not only in the domestic markets of foreign manufacturing nations—favoured by long hours, low wages, and hostile tariffs—but in neutral (including our home) markets. Before entering into the subject of competition in our Eastern markets, it will be well to consider the general aspect of the import and export trade of foreign nations in textile manufactures, and the relative position of the United Kingdom in the years 1875 and 1891. From Table No. 4 it will be seen, by deducting imports from exports, that we are far to the front in respect to the cotton industry, but that Germany, France, and, in fine goods, Switzerland have become formidable competitors; and that the value of our cotton export trade, taking yarns and manufactures together, is even less than it was in 1875. French competition, however, is greatly restricted to French possessions, from which the goods of their rivals are excluded by exclusive tariffs. Our position with respect to the export of woollen goods is becoming worse and worse. Our export trade in woollen and worsted yarns has decreased in value from £6,110,138 in 1872 to £5,045,996 in 1891, and our export of woollen manufactures from £32,383,273 to £18,446,640 between the same years. Out of the £9,669,179 worth of woollen manufactures imported by us in 1891, of which £8,332,768 were for home use, £5,174,140 worth of stuffs came from France, which has a net export of £11,776,720 of woollen manufactures, against a net export of £10,113,872 from this country. Not only has France passed us in the net export of these goods, but Germany is running us hard, and promises soon to be ahead of us. In silk manufactures we are nowhere in comparison with the position of France, Germany, and Switzerland.

16. The whole of the table is well worth close consideration, and affords ample proof of the statement made by Sir J. Crowe, the commercial *attaché* to British embassies and legations in Europe, that, owing to long hours and low wages, goods are turned out at less cost on the Continent than in this country. In his evidence before the Depression of Trade Commission, he said, with reference

TABLE No. 4.

	Germany.	Holland.	Belgium.	France.	Switzer- land.	Italy.	Austro- Hungary.	United St. tes.	UNITED KINGDOM.	
									1891.	1875.
Cotton Yarn—	£	£	£	£	£	£	£	£	£	£
Import.....	2,614,050	2,251,083	184,800	1,249,840	265,840	348,560	1,264,416	188,361	....	....
Export.....	994,750	973,425	....	....	895,080	....	....	....	11,177,348	13,172,860
Cotton Manufactures—										
Import.....	598,500	727,833	714,280	1,639,320	1,101,120	1,179,240	418,083	6,044,566	2,313,733	1,080,058
Export.....	8,403,850	2,449,250	921,320	4,414,320	5,420,560	....	520,166	2,083,182	60,230,256	59,598,871
Woollen, &c., Yarn—										
Import.....	4,641,150	879,000	....	....	201,800	....	1,490,000	3,180,017	1,868,578	1,472,936
Export.....	1,972,400	876,833	2,181,080	1,387,760	425,480	....	217,500	....	5,045,996	5,099,307
Woollen Manufactures—										
Import.....	655,450	469,250	837,640	2,676,680	1,717,920	1,952,680	862,000	10,451,029	8,332,768	4,088,135
Export.....	9,070,400	500,333	1,160,240	14,453,400	226,400	....	1,876,166	108,166	12,446,640	21,659,325
Silk Yarn—										
Import.....	....	....	....	....	4,621,320	1,692,280	....	....	479,066	15,112
Export.....	....	....	....	....	2,997,160	10,748,600	....	....	516,519	880,923
Silk Manufactures—										
Import.....	....	....	118,928	2,556,800	558,240	453,280	1,019,166	8,059,661	10,278,848	11,936,106
Export.....	9,316,300	....	....	10,957,120	4,841,240	622,760	1,532,250	10,483	1,744,645	1,734,519

FOREIGN COMPETITION IN THE EAST.

to French competition, "French workmen set to work in a lackadaisical fashion, but still cheap labour tells against us;" with reference to German competition, "The cost of production in Germany is less than in Great Britain;" and with reference to Belgian competition, "The lower wages in Belgium enables it to beat not only the French but the Germans and ourselves." In order to successfully compete with foreigners it is necessary that manufacturers and operatives in this country should study what is going on elsewhere in the world, and should intelligently work together in mutual endeavour to meet the growing competition. Manufacturers can do much by studying the ever-varying fashions and by meeting the requirements of the public; and operatives should make use of our rapidly increasing art and technical schools, be ready to aid the manufacturers in meeting the whims and fancies of customers, and do their utmost to compensate the manufacturers for the higher wages they receive and the shorter hours they work by attending to as much machinery and turning out as much and as good work as lies in their power.

17. Table No. 5 shows the values of the import and export of linen, jute, and certain other textile manufactures to and from this country in the years 1875 and 1891. In this table it will be noticed that while the export of our linen yarn and manufactures has decreased, our import of them has considerably increased. It is also notable that our export of haberdashery and millinery in 1891 was very much less than in 1875, and our import of lace has more than doubled in the sixteen years.

TABLE No. 5.

	1875.	1891.
	£	£
Linen Yarn—Import	198,345	758,749
" " Export	1,855,684	899,026
" Manufactures—Import	289,459	427,691
" " Export	7,272,920	5,032,196
Jute Yarn—Export	225,836	341,986
" Manufactures—Export	1,404,997	2,534,606
Apparel and Slops	3,185,325	5,150,931
Haberdashery and Millinery—Export ...	4,922,420	2,000,101
Lace and articles thereof—Import	404,143	963,132

IMPORTANCE OF OUR EASTERN MARKETS.

18. Our Eastern markets, or those bordered by the Indian Ocean and China Sea, comprise Australasia, Eastern Africa and the adjacent islands, Asia Minor, Persia, India, Ceylon, Indo-China,

FOREIGN COMPETITION IN THE EAST.

the Malay Peninsula and Archipelago, the Philippines, China, Corea, and Japan. They contain considerably more than half the population of the world, and are, outside a few insignificant exceptions, open on free or fair terms to the trade of all nations. Here lies a wide field for the extension of our commerce, a field of especial importance to our cotton industry, because its inhabitants are nearly exclusively clad in cotton cloth. It is to these markets that we must look chiefly for the future development of British trade, and for the salvation and increase of many of our industries, now actually collapsing or threatened with collapse. Their growing importance to our cotton industry is clearly shown by Table No. 6, giving the exports of cotton yarns and cotton piece-goods from the United Kingdom to various parts of the world in 1820, 1860, and in 1890. These exports comprise one-third of the total value of the export of our home production of manufactured and partly manufactured articles. The table is compiled from information given in Messrs. Ellison and Co.'s "Annual Review of the Cotton Trade for the year 1890."

TABLE No. 6.

FROM THE UNITED KINGDOM TO	EXPORTS OF COTTON PIECE-GOODS.		
	1820.	1860.	1890.
	%	%	%
Europe (except Turkey)	50·9	10·8	6·8
Turkey, Egypt, and Africa	3·8	12·9	13·5
America (except United States)	22·3	19·0	15·4
United States.....	9·5	3·2	1·2
British East Indies, China, Java, &c....	5·7	41·4	58·4
Other Countries.....	7·8	7·7	4·7
Total	100·0	100·0	100·0
	EXPORTS OF COTTON YARNS.		
	1820.	1860.	1890.
	%	%	%
Europe (except Turkey)	95·6	58·8	47·9
Turkey, Egypt, and Africa .....	...	...	...
America (except United States)	2·2	9·9	13·0
United States.....	...	...	...
British East Indies, China, Java, &c....	7·6*	20·1	35·0
Other Countries.....	2·2	11·2	4·1
Total	100·0	100·0	100·0

* In 1830; no information for 1820.

FOREIGN COMPETITION IN THE EAST.

19. In the twenty years 1871-91, the population of the United Kingdom increased from 32,000,000 to 38,000,000 souls, or by nearly 19 per cent. With such an increase to our population we would naturally expect a great increase in our foreign trade; but manufacture and competition has been rapidly developing on the Continent and elsewhere, and to such an extent that our export of home produce and manufacture to foreign markets taken in the gross has actually diminished between 1872 and 1891 from £196,000,000 to £161,000,000, or by nearly 18 per cent. This would have proved even more serious than it has been to the prosperity of all dependent upon the growth of our industries if a similar drop had happened in our export to British possessions. This happily has not been the case. The value of our export of British and Irish produce from this kingdom to our possessions has increased in this period from £60,000,000 to £86,000,000, or by over 43 per cent. The larger part of this increase is due to India and our other Eastern possessions; and the decrease in our export to foreign countries has not been due to a diminishing export to foreign markets in the East. This is the more satisfactory when we consider the heavy fall in the gold value of the silver currency of India, China, Japan, and other Eastern markets since the opening of the Suez Canal in 1869. Deducting animals, provisions, and raw materials, our exports—manufactured and partly manufactured articles—to all countries increased between 1869 and 1891 from £188,799,887 to £214,570,470, or by only 13·65 per cent in 22 years.

THE FALL IN THE GOLD VALUE OF SILVER.

20. The fall in the gold value of the rupee since 1869 has been nearly continuous. Its value has decreased from 1s. 11·267d. to 1s. 2·625d., or by more than 37 per cent. The condition of exchange between 1869 and October, 1892, is shown in Table No. 7.

TABLE No. 7.

1869-70	1s. 11·267d.	1881-82	1s. 7·895d.
1870-71	1s. 10·495d.	1882-83	1s. 7·525d.
1871-72	1s. 11·126d.	1883-84	1s. 7·536d.
1872-73	1s. 10·754d.	1884-85	1s. 7·308d.
1873-74	1s. 10·351d.	1885-86	1s. 6·254d.
1874-75	1s. 10·156d.	1886-87	1s. 5·441d.
1875-76	1s. 9·625d.	1887-88	1s. 4·898d.
1876-77	1s. 8·508d.	1888-89	1s. 4·379d.
1877-78	1s. 8·791d.	1889-90	1s. 4·566d.
1878-79	1s. 7·794d.	1890-91	1s. 6d.
1879-80	1s. 7·961d.	Oct., 1892	1s. 2·625d.
1880-81	1s. 7·965d.		

FOREIGN COMPETITION IN THE EAST.

21. In our silver currency Eastern markets, where purchasers are poor and have but meagre sums to spare for clothing and articles of luxury, a fall in the gold value of silver means to our manufacturers either a lowering of the gold values of their goods in the same ratio as the fall in exchange, or the restriction of their trade to such customers as can still afford to buy from them. The poorer customers must either diminish their take or place their custom with manufacturers who can supply an inferior and cheaper class of goods. If a manufacturer elects to diminish his margin of profit in order to continue supplying his silver currency customers, all margin of profit is liable to suddenly disappear and turn into a loss through the sudden and vexatious fluctuations in exchange. He then has the choice of stocking his goods in hope of a happy turn of fortune's wheel, or selling his goods at a loss at the ruling market rate. But few manufacturers can afford to take the former course, owing to the large working capital required in doing so. Many are therefore forced to sell even at a loss in order to meet their current expenses, being afraid to stop their works lest the spinners should demand settlement for their yarn, and bankers the return of their loans used by the manufacturer as working capital. It is better to keep their works going and sell part of their stock at a loss, on the chance that prices may rise, than risk the hurried sale of the whole of their goods as a bankrupt's stock, which would certainly entail a still heavier loss and leave them broken men.

22. A fall in the gold price of silver affects the price of goods both in gold and silver currency markets both directly and indirectly. The gold price of any one class of goods in the East rules the price of that class of goods, whether sold at home or elsewhere. A manufacturer who, through the heavy fall in exchange or the unfair advantages that our Government allows to his Indian rivals at the expense of the health of the Indian working classes, has lost all hope of placing the goods he manufactures on the market at a profit, turns to manufacturing other classes of goods, and thus tends to induce the over-production of those goods and a consequent fall in price and diminished margin of profit to their producers. Thus we find Oldham manufacturers of medium counts of cotton yarn, whose trade is threatened with extinction through the constant drop in exchange and the unfair competition of India, about to compete with Bolton and other places in the manufacture of finer counts, as yet unaffected by their Indian rivals.

DOMESTIC EXPORTS FROM THE UNITED KINGDOM TO THE EAST.

23. In our Eastern markets two classes of competitors are engaged in trade rivalry, those possessing natural geographical advantages—such as India, China, Japan, and the French in Tonquin—and

TABLE No. 8.

DOMESTIC EXPORTS FROM UNITED KINGDOM TO	1869. £	1881. £	1890. £	1891. £
Dutch Indies.....	660,237	1,737,871	1,653,827	2,506,044
French India.....	.....	14,473	115	1,742
Philippine Islands	832,981	1,485,689	998,412	786,531
China and Hong Kong	8,973,677	9,579,387	9,137,194	8,987,921
Japan.....	1,442,104	2,824,620	4,081,793	2,882,964
British India.....	17,559,865	29,244,007	33,641,001	31,117,968
Straits Settlements	1,738,275	2,563,828	2,883,244	2,463,543
Ceylon	796,362	806,948	921,615	1,016,573
Mauritius	381,827	438,682	320,336	256,595
Cape of Good Hope and Natal	1,572,067	7,072,980	9,128,164	7,957,878
Australasia	13,411,512	22,383,294	23,006,004	25,500,194
Total to Eastern Markets	47,368,917	77,146,416	85,771,695	83,537,953
„ Non-Eastern Markets	142,585,040	156,856,262	177,758,890	163,697,197
* Total to all Markets.....	189,953,957	234,002 678	263,530,585	247,235,150

* The total to all markets in 1872 was £256,000,000, and in 1873 it was £255,000,000.

FOREIGN COMPETITION IN THE EAST.

outside traders, such as the Continent of Europe, America, Australasia, and the United Kingdom. The opening of the Suez Canal in 1869 gave a great impulse to the extension of trade in the East, which has been vastly increased in Japan, India, Australasia, and South Africa, by the further improvement of trade communication through railway construction and cheapened ocean carriage. Table No. 8 shows the exports of home produce and manufacture to the following Eastern markets in the years 1869, 1881, 1890, and 1891.

24. From Table No. 8 it is evident our exports to the East have increased by over 76 per cent in the twenty-two years 1869-91, against an increase in the same period of less than 15 per cent to our other markets. The disparity in these percentages would have been far greater if the gold value of the coinage of our silver currency markets had not fallen 23·87 per cent in the interval. The silver value of our domestic produce and manufacture sent to China, instead of remaining stationary like the gold value, increased nearly $31\frac{1}{2}$ per cent in this period, but this increase is highly disappointing when we know that our imports direct and indirect into China, which formed $47\frac{1}{2}$ per cent of its net imports in 1869, had fallen to 30 per cent in 1891, and that the silver value of the net import from all countries into China had increased in the period from Hk. taels 74,923,202 to Hk. taels 134,003,863, or by 78·85 per cent. It is thus evident that our rivals have been forging ahead largely at our expense.

25. Another lesson taught by the table is that our Eastern markets took more than one-third of the gross export of our domestic goods in 1891, against less than one-fourth in 1869; this shows their rapidly increasing importance to our home industries. Another lesson is that, owing to its advance in wealth and civilisation and to its development by railways, Japan, per inhabitant, is becoming a better customer for our goods than British India. Another lesson is that China, as a customer per inhabitant for our produce and manufactures, lags far behind any other of our Eastern markets. The Chinese Empire, according to its census returns, possesses a population of over 400,000,000 souls. What is an import of £9,000,000 worth of our goods amongst such a large population? If China took as much from us per inhabitant as India does, the value of its imports of our merchandise would exceed £45,000,000 sterling; and if it took in the same proportion as the 6,000,000 inhabitants of our gold currency Eastern colonies of South Africa and Australasia receive, its imports from this country would be valued at over £2,230,000,000 sterling—nearly ten times the total value of our export of British and Irish produce and manufacture to all countries. It is to these Eastern countries that we must mainly look for the future extension of our trade. It will, therefore,

FOREIGN COMPETITION IN THE EAST.

be well to closely consider their past development in trade, and how best to stimulate it for the future, and to intelligently examine the competition we have to contend with in these markets, which is increasingly hampering the growth of our commerce and threatening it with extinction.

EUROPEAN COMPETITION IN EASTERN MARKETS.

26. Competition for the Eastern trade, besides its geographical division noted in paragraph 23, ranges itself under two heads, competition on the part of gold currency countries and of silver currency countries. The chief competitors amongst the gold currency countries are the nations of Europe, North America, Russia in Asia, and our Australasian colonies. Australasia with its population of 4,000,000 inhabitants, a population less than that of London, is our largest Eastern market next to British India. It possesses 11,364 miles of railway, against 17,375 miles in India, and promises soon to surpass it as a purchaser of our goods. It is an excellent customer for us, taking considerably over £6 of our merchandise per inhabitant, against about 2s. 2d. worth taken per inhabitant of India. The area of Australasia is nearly as great as that of Europe, containing 3,448,542 square miles of territory against 3,859,200 square miles in Europe. It possesses ample space for fifty times its present inhabitants to thrive in. With ten times its present population, if each person took the same value as at present, Australasia would take more British merchandise than we now export to the whole of the world. No better policy could be instituted by our Government than the fostering by all means in their power emigration from this country to Australasia. Our exports of British and Irish merchandise to Australasia were valued at £17,681,661 in 1876, £21,377,931 in 1881, £22,395,751 in 1886, £23,006,004 in 1890, and £25,500,194 in 1891. Our total exports to it, including re-exports of colonial and foreign merchandise, were for the same years £19,470,063, £23,982,404, £25,017,885, £25,470,194, and £28,256,120.

COMPETITION IN AUSTRALASIA.

27. Table No. 9 shows the value in pounds sterling of the imports from the undermentioned countries into Australasia for the years 1876, 1881, 1886, and 1890.

28. While our exports of British and Irish produce to Australasia have been practically stationary since 1882—being valued at £25,365,087 in that year, £25,166,766 in 1885, £25,477,724 in 1888, and £25,500,194 in 1891—the exports from Sweden and Norway, Belgium, France, Germany, and the United States have gained a firm footing and have rapidly increased. The value of the exports of Germany, which only commenced entering Australasia in 1879, already reaches close upon £1,500,000 sterling.

TABLE No. 9.

IMPORTS FROM	1876.	1881.	1886.	1890.
United Kingdom.....	£ †21,769,654	£ †25,662,185	£ §29,434,308	£ ||28,155,866
Sweden and Norway	111,278	259,157	534,491	646,577
Belgium	2	5,101	131,727	121,060
Dutch Possessions	682,823	460,619	28,632	530,737
France	38,474	151,681	401,082	298,269
French Possessions	174,406	188,745	82,356	97,990
*Germany .....	.....	206,836	646,976	1,321,641
Spanish Possessions	57,993	80,464	6,448	4,849
United States	936,521	1,585,350	2,404,714	2,639,818
India.....	250,681	613,805	357,233	779,973
Straits Settlements.....	37,702	38,724	57,290	94,354
Ceylon	777,374	109,630	60,993	167,216
China and Hong Kong	1,284,718	1,940,739	1,578,607	1,397,552
Fiji Islands	7,996	10,967	35,643	67,581
South Sea Islands	33,018	45,886	38,377	40,426
Mauritius	1,277,454	1,363,421	556,097	663,573
Natal: Cape of Good Hope	13,176	384	10,440	219
Canada.....	35,538	54,888	76,039	55,740
Total Value of above British and Foreign Imports.....	27,488,808	32,778,582	36,441,453	37,083,441

NOTE.—† Includes £94,300 of treasure. ‡ Includes £98,840 of treasure. § Includes £205,000 of treasure.

Includes £101,657 of treasure.

* German Imports commenced in 1879.

• Import values into a country differ from export values in the country of origin owing to cost of carriage, shipping, and other charges being included in the import values.

FOREIGN COMPETITION IN THE EAST.

COMPETITION OF GOLD CURRENCY COUNTRIES IN EASTERN MARKETS.

29. Between 1880 and the close of 1890 the Dutch exports to the East increased in value from £3,023,413 to £4,812,397, or in ten years by 59·13 per cent; the French exports (excluding those to French possessions) from £1,144,188 to £1,754,512, or by 53·34 per cent. Between 1882 and the close of 1890 the Belgian exports to the East increased in value from £479,025 to £1,011,600, or by 111·17 per cent in eight years. Between 1885 and the close of 1890 the Swiss exports to the East increased in value from £810,320 to £1,228,120, or in five years by 51·56 per cent. Between 1882 and the close of 1890 the Italian exports to the British East Indies decreased from £1,083,360 to £485,240, and to Japan from £28,714 to £20,962, a gross decrease in eight years to these Eastern markets of 119·69 per cent. The two most important gold currency competitors to consider are Germany and the United States. Between 1881 and 1891 the exports from the United States to China increased from £1,134,731 to £1,812,564; to Hong Kong, from £607,291 to £988,428; to the Dutch East Indies, from £360,208 to £438,112; and to Australasia, from £498,772 to £2,685,600. Between 1881 and 1890 its exports to Japan increased from £300,000 to £1,088,958; to the British East Indies, from £178,750 to £969,791; and to British Africa, from £498,772 to £674,751. Its imports into India mainly consist of mineral oil, valued at Rx.1,403,331 in 1890-91. Its exports, which compete with ours in various markets, include agricultural implements, chemicals, drugs and medicines, coal, copper and copper manufactures, cotton manufactures, provisions, sewing machines, butter, sugar, iron and steel manufactures, and locomotives and other machinery.

30. Table No. 10 shows the exports from Germany to the under-mentioned Eastern markets for the years 1882, 1888, 1889, and 1890.

TABLE No. 10.

GERMAN EXPORTS TO—	1882.	1883.	1889.	1890.
	£	£	£	£
West Coast of Africa—German	214,150	301,250	142,550	158,900
West Coast of Africa—other			218,100	209,050
East Coast of Africa—non-German...			63,400	87,300
Cape of Good Hope and Natal			375,950	270,100
China, Hong Kong, and Macao	455,900	804,350	1,211,950	1,493,150
Japan	104,550	262,150	926,450	924,050
British East Indies	188,200	427,700	1,325,100	1,608,250
Dutch East Indies	426,700	410,350	440,100	549,150
Spanish Possessions in Asia and)			234,750	174,050
Australasia				
Australasia	346,100	601,100	1,062,750	1,305,800
Total German Exports to East..	1,735,600	2,806,900	6,001,100	6,779,800

FOREIGN COMPETITION IN THE EAST.

31. From Table No. 10 it is evident that the export of German produce and manufacture to the East has increased fourfold in eight years. Comparing the increase of our home exports to the East, as shown in Table No. 8, with the table of German exports, we find that while within the ten years 1890-91 our exports increased in value by £6,391,537, the German exports to the same markets increased in the eight years 1882-90 by £5,044,200, or by the same average amount per annum as our own. The German exports show a large increase to each of the markets specified in Table No. 10 with the exception of the Dutch and Spanish possessions, which are rendered difficult of entry by protective tariffs.

32. Table No. 11 shows the value in tens of rupees of the import of merchandise into India from the United Kingdom, the Continent of Europe, and from the United States for the years 1887-88, 1888-89, 1889-90, and 1890-91; the years ending on March 31. Ten rupees in 1890-91 were equivalent to fifteen shillings.

TABLE No. 11.

COUNTRIES.	1887-88.	1888-89.	1889-90.	1890-91.
	Rx.	Rx.	Rx.	Rx.
United Kingdom.	49,042,488	52,576,440	50,291,140	52,101,868
Austria	770,933	768,386	703,716	832,795
Belgium	304,643	526,698	873,827	976,759
France	849,016	914,334	975,647	815,824
Germany ...	194,493	248,016	563,912	1,691,649
Greece	38	369	177	130
Holland	3,929	11,715	9,469	18,739
Italy	370,993	504,797	510,508	492,711
Norway	3,481	1,793	14,848	26,782
Portugal	124	319	665	362
Russia .....	.....	50	48*
Spain .....	.....	609	285	104
Sweden	22,928	2,175	7,577	3,664
Turkey	1,691	1,024	1,990	1,301
United States ...	1,030,280	1,040,318	1,729,156	1,522,365
TOTAL IMPORTS FROM ALL COUNTRIES	62,384,813	66,570,318	66,560,121	69,034,900

33. The table shows the rapid rate at which the imports from Germany, Belgium, and the United States are increasing. Germany's bonus-fed sugar formed one-half in value of its exports to India

* The imports from Russia in Asia are considerable. In 1890-91 they were valued at Rx.858,968, having risen from Rx.67,745 in 1886-87. They consist entirely of mineral oil.

FOREIGN COMPETITION IN THE EAST.

in 1890-91, having increased from Rx.51,574 in 1889-90 to Rx.840,270 in 1890-91, an increase of sixteenfold in one year. It promises to extinguish the import from the United Kingdom and to run hard the import from our colony of Mauritius, from which the larger part of India's import of sugar is received. Germany has not been slow in taking advantage of the rise in price of our Cheshire salt. In 1889-90 the import of salt into India from the United Kingdom amounted to 285,767 tons, and from Germany to 45,439 tons. In 1891-92 the import from the United Kingdom had fallen to 222,260 tons, and that from Germany had increased to 103,403 tons.

34. Austria, Belgium, and Germany are increasing their export of hardware and cutlery to the East. In 1889-90 the value of these imports into India was from Austria, Rx.28,660; from Belgium, Rx.25,987; and from Germany, Rx.29,589. In 1891-92 they increased respectively to Rx.45,098; Rx.49,692; and Rx.76,523. Most of the iron manufactures imported into India come from the United Kingdom, but imports from Belgium have increased greatly in recent years.

35. India's import of silk goods from France is making rapid progress at the expense of the United Kingdom. In 1889-90 India received 5,108,307 yards from us, against 616,356 yards from France. Two years later its receipts from us had dwindled to 4,504,315 yards, while its import from France had increased to 1,271,499 yards, or nearly doubled. In woollen goods Germany is rapidly coming to the front. In 1889-90 India received from her 974,872 yards, and two years later 2,237,685 yards, or more than double. The export of apparel, including haberdashery and millinery, to India from France increased from Rx.174,510 in 1890-91 to Rx.200,468 in 1891-92, while that from the United Kingdom diminished from Rx.870,401 to Rx.730,201. The imports from Australasia into India consist mainly of horses, copper, and coal. Its total imports into India in 1890-91 were valued at Rx.249,718. In the same year the import of coal, coke, and patent fuel into India from the United Kingdom was valued at Rx.1,497,144; from Australia, at Rx.18,681; from Japan, at Rx.22,607; and from Java, at Rx.1,100. The production of coal in India is steadily increasing; in 1889 it amounted to over 2,000,000 tons.

36. Table No. 12 gives a fair idea of the thin edge of the wedge which is being driven persistently into our Eastern markets by our European competitors. It deals with the country of origin of the chief articles imported into British India in the official year 1890-91, which ends on March 31. The values are given in tens of rupees. Ten rupees in that year averaged 15s. in value.

TABLE No. 12.

<i>a</i> Articles Imported into British India in 1890-91.	Total Value from all Countries.	United Kingdom.	Austria.	Belgium.	France.	Germany.	Holland.	Italy.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Ale, Beer, and Porter.....	419,772	395,606	661	1,089	86	17,695	....	186
Spirits	665,144	512,552	1,282	8,538	86,403	21,007	1,628	502
Wines and Liqueurs	336,754	263,727	4,825	4,271	39,406	3,685	249	5,491
Salt	779,034	563,074	....	....	....	133,429	....	....
<i>b</i> Sugar.....	3,399,886	343,242	36,984	30,486	14,620	840,271	....	89
<i>c</i> Iron Manufactures.....	2,562,306	2,240,873	12	299,158	....	11,808	....	....
Steel Manufactures	472,187	331,187	....	97,049	251	42,812	795	32
Total Metals Manufactures	5,646,147	4,509,344	59,891	424,594	36,206	64,079	795	6,551
<i>d</i> Hardware and Cutlery	1,197,614	1,033,916	46,007	28,774	9,149	55,794	54	1,490
<i>e</i> Machinery and Millwork	2,063,863	2,045,946	3,551	4,082	337	5,186	....	25
Aniline and Alizarine Dyes	353,994	88,704	26,207	182,776	2,108	29,701	4,102	20,184
Cotton Twist and Yarn.....	3,768,362	3,681,242	37,354	11,358	360	4,459	2,175	11,927
<i>f</i> Other Cotton Manufactures.....	27,247,987	26,855,197	48,263	20,507	17,161	37,291	3,018	87,020
<i>g</i> Flax Manufactures	143,221	141,966	206	279	30	294	....	....
Silk Piece-goods	1,201,293	593,424	3,532	1,551	90,217	4,210	....	29,060
Silk mixed with other materials.....	165,003	14,585	9,281	1,383	107,082	6,196	....	21,877
Woollen Piece-goods	1,295,162	948,814	124,704	6,449	22,991	167,065	....	956
Woollen Shawls	293,054	219,745	27,980	589	189	43,895	....	182
<i>h</i> Apparel, Haberdashery, and Millinery	1,349,898	870,401	95,506	9,310	174,510	22,187	....	19,793
Cabinetware and Furniture.....	91,415	60,423	6,749	367	466	11,447	....	1,421
Jewellery and Plate	94,551	59,025	12,752	68	4,180	991	....	2,497
Paints and Colours	233,815	164,394	208	21,360	723	7,038	543	2,132
Stationery	703,318	489,892	138,059	19,571	1,639	26,340	496	1,825
Total value of imports of merchandise	69,034,900	i 52,101,868	832,795	976,759	815,824	1,691,649	18,739	492,711

a There are numerous other articles imported which are not named in the table. *b* From Mauritius, Rx.1,466,402. *c* From Norway, Rx.4,642.
d From United States, Rx.3,398. *e* From United States, Rx.1,580. *f* From United States, Rx.317. *h* United States,
Rx.1,154. *i* Does not include the import of Government stores. Including this amount, Rx.2,940,471, the total import of merchandise from the United
Kingdom was valued at Rx.55,042,339. Cotton yarn and other manufactures represent more than one-half of the imports from the United Kingdom.
NOTE.—Total value of imports from Australasia, Rx.249,718; and from British Possessions, including Australasia, Rx.7,081,812.

FOREIGN COMPETITION IN THE EAST.

37. The exports from France to the East consist largely of French silks, mousseline-de-laine, Paris fancy wares, haberdashery, millinery, light wearing apparel, cutlery, toys, hosiery, preserved foods, and red and sparkling wines. German and Belgian exports, amongst other articles, include fancy cotton goods, cotton flannels, fustians, woollen and half-woollen goods, flannels, aniline dyes, needles, brass buttons, matches, window glass, glass and pottery ware, lamps, cement, candles, cotton wrappers, sewing machines, tin ware, wire fencing, galvanised iron, bar iron, sheet iron, iron and steel rails, rod iron for nail-making, and numerous articles of peddlery. In many of these articles it is said, owing to their cheap manufacture in Belgium and Germany, it is impossible for us to compete. Where there is a will there is a way, and I am extremely hopeful that our manufacturers, aided by the practical good sense and trained ability of our working classes, will be able to regain the ground they are losing in the East, and not allow British trade supremacy in the Eastern markets to become a tale of the past. Mr. O'Connor, our Minister at Peking, forwarded some years ago to the Foreign Office specimens of Chinese picks, hoes, spades, hatchets, trowels, and sickles, a plough coulter, and several specimens of razors manufactured and used in China; and expressed the opinion that these articles could be made in England at less cost than in China, and that if consigned to intelligent agents in China they would find a ready sale. These articles were sent to the Birmingham Chamber of Commerce, and were exhibited at Birmingham for the inspection of local tool and implement makers. Similar collections of Chinese cotton piece-goods have been made and forwarded to Manchester. It will be a pity if, owing to their narrow width, our manufacturers neglect to make similar cloths, as these widths are those best adaptable to the clothes used by the peasantry, and are in enormous demand. In his report for 1890, our Consul at Hankow said, "I feel sure Lancashire could provide a better and cheaper material for sails than that now used, also a cheaper material made of strong fabric dyed dark blue with indigo, which is the principal dress of the poor."

38. The chief cause of the success of our German rivals is ascribed to the habit of German manufacturers studying the requirements of the markets, and being alive to all opportunities for pushing trade. Commencing with small trial shipments, they manage to educate the people into new wants, and supply them at the cheapest possible price, despising no opening that indicates a chance for increased and profitable trade. It seems to be otherwise with British merchants in the East. Consuls, not only from the East but from all parts of the world, point to a growing lack of activity and enterprise in our merchants, comparing badly with the performance of merchants of

FOREIGN COMPETITION IN THE EAST.

other nationalities. They are said to work too much in old-fashioned grooves, and to have their eyes closed to numerous opportunities for trade in articles which may appear paltry, but if extensively dealt in would ensure an enormous development to their trade. Thus they let the chance of trade slip by them, which is easily grasped and fostered, and made the most of by their competitors. In referring to this subject, Mr. Alabaster, our able Consul at Canton, in his report for 1889, remarked:—

For an increase in the number of British merchants there is probably no immediate prospect, but I cannot but think that there is an opening for tradesmen, men ready to retail all articles of foreign production, to introduce new articles to the market and to send in return to their agencies at home pretty articles for which there may be demand. It is no use sending to a merchant used to business on a large scale, and asking him to push the sale of feeding bottles; but there is need of feeding bottles, and, properly pushed, a considerable business to be done in them. Matches, needles, condensed milk, aniline dyes, and beads have won their way into the rank of staples, but at their introduction the merchants generally looked askance at them; and there are numberless other articles for which a demand, and in time an enormous demand, could be created if there were only men to push them. As it is, some of the largest fortunes made in China have been made by tradesmen, and there is still an opening for them with good prospects of success, although at the commencement they may have uphill work. I continually get letters from home asking me to mention the names of firms who could push this or the other article, and am in great difficulty to answer, for in the majority of cases it is a shopkeeper and not a merchant that the inquirers need, and there are no shopkeepers to whom to recommend them.

39. Seeing how German and other foreign merchants are bent on pushing their trade in China and other parts of the East, and the great advantage many of them possess in having acquired a fair knowledge of the language of their customers, it is surely time that oriental languages should become part of the curriculum of our commercial schools, and be studied by all intending to take part in the commerce of the East. It does not speak well for the business attainments of our commercial community for an authority like Professor Douglas, who has the extension of British trade at heart and is well acquainted with affairs in the East, to be able to declare, as he did recently in addressing a public meeting, with reference to our merchants in China, that—

Our merchants congregate at the ports, and trouble themselves very little about their environments. It would not be running any great risk to wager that not more than one or two out of every hundred of our merchants in China would be able to name the eighteen provinces of the Empire, and certainly the proportion is not larger of those who can speak intelligibly half-a-dozen sentences of the language. The late Dr. Wells Williams, speaking of the foreign relations with China before the war of 1840, says: "The entire ignorance of foreign traders of the spoken and written language of China brought them into contempt with all classes, and when all intercourse was carried on in a jargon which each party despised, the results were often misunderstanding, dislike, and hatred." These are words of truth, and unfortunately they apply equally to-day to the British

FOREIGN COMPETITION IN THE EAST.

mercantile communities. It is deplorable to think that men should live ten, fifteen, and twenty years in a country without learning even enough of the language of the natives to converse with them. How should we regard the settlement on our shores of communities of foreign merchants, who lived apart, made no attempt to learn our language, and conversed only with those of their underlings who could talk a broken jargon vaguely related to the language of the settlers? No bond of union could exist between them and the people of the country. They would be regarded as outer strangers, and if in any outbreak of fanaticism they were attacked and their goods despoiled they would get little sympathy from the people at large. Such is precisely the position of our merchants with regard to the Chinese. No one who has lived in any country abroad can have failed to experience what a passport to the confidence and hospitality of the natives of the country is a knowledge of their language, and yet our merchants in China make no attempt to avail themselves of this very direct way to the friendship and the fellowship of the people. It has always been their custom to depend on their "pidgin" English-speaking compradores and servants in their intercourse with the natives, and they find it difficult to break through their habit. This was all very well when, practically, they had no competitors in the trade. But in the last quarter of a century a complete change has come over the commercial balance, and the result of our obstinate refusal to keep abreast of the times has resulted in the fact that while the foreign trade with China has steadily increased, our share in it has diminished.

DEVELOPMENT OF THE TRADE AND TRADE COMPETITION OF JAPAN.

40. In 1868, the year before the opening of the Suez Canal, the Tycoon was deposed from his office of Commander-in-Chief of the Forces in Japan, and the Mikado, no longer invisible to his subjects, became *de facto* as well as *de jure* sovereign of the country. From that time Japan's march forward on the path of progress has been rapid and continuous. While adopting European manners and customs, it has educated itself in Western knowledge and experience. Its army consists of 78,957 men, which can be increased in time of war to 245,323 men, equipped with European arms of precision, and mainly organised on the German system, though some of the cavalry regiments received their early training from French officers. Its navy and marines have been brought to their present high standard of efficiency principally by instruction from British officers. Its fleet consists of an ironclad, seventeen coast defence, two despatch, and six gun vessels, twenty first-class torpedo boats and one seagoing torpedo boat, besides a few vedettes, eight unarmoured ships, and a few training vessels; and is manned by 9,885 officers and men. To see the Japanese blue jackets at drill, lithe and active as cats, is to witness a performance alike creditable to them and their trainers.

41. The numerous islands forming the Empire of Japan contain an area of 147,697 square miles, and a population of 40,500,000 souls, a population larger than that of the United Kingdom. Its sea-girt shores and fine harbours, its docks and large shipbuilding yards—where large iron and steel ships are constructed, repaired, engined,

FOREIGN COMPETITION IN THE EAST.

and equipped—its position in respect to China, Indo-China, and Corea resembling that of our Isles towards the Continent of Europe, together with its coal, copper, silver, and gold mines, its rapid development as both a consuming and manufacturing Power, its extending railway system, which now comprises 1,717 miles of line, and the energy, good sense, and artistic talents and tastes of its people, render it one of our best customers, and promise to make it in the near future one of our most formidable rivals in the markets of the East.

42. Amongst the industrial establishments of Japan are breweries, glass works, cement works, foundries, iron safe manufactories, machine-making factories, soap factories, match factories, rope factories, paper mills, factories for electric light appliances, gun-powder, boots and shoes, foreign clothing, hats and umbrellas, brush-making, saddlery, coach-building, upholstery, paints, lubricating oils, sulphuric acid, caustic soda, bleaching powder, artificial fertilisers, and bricks and tiles, and silk, cotton, woollen, and jute spinning and weaving mills. In 1891 its exports of textiles and clothing were valued at £864,622; of cotton goods, at £60,417; of silk handkerchiefs, at £452,527; of other silk goods, at £318,379; of European-style umbrellas, at £25,992; matches, at £296,709; of drugs, medicines, dyes, and paints, at £403,327; of copper, at £790,121; and of coal, at £764,410. The total value of its exports in that year aggregated £12,798,920.

43. The rapid growth of the import and export trade of Japan can be judged from the following figures:—In the eight years 1882-90 the imports of merchandise into Japan increased in value from 32,828,000 yen (£6,121,000) to 81,829,000 yen (£13,927,000), or by 150 per cent in silver currency and 117 per cent in gold value. During the same period its exports of merchandise increased in value from 39,228,000 yen (£7,314,000) to 56,604,000 yen (£9,198,000). In 1891 the value of its exports further increased to 77,915,626 yen (£12,798,920), an increase in the silver value of its exports in nine years of over 98 per cent.

44. One of the most interesting subjects connected with the trade of Japan and its growing powers of competition is the rapid rise of its cotton industry. Its first cotton spinning mill was erected in 1865. Between 1880 and 1885 fourteen more mills were added, and since the latter date their number has increased to thirty-eight. In 1890 these mills contained 385,990 spindles, which consumed 49,331,368lbs. of raw cotton and turned out 42,527,042lbs. of yarn. During the first six months of the current year (1892) the production of cotton yarn by Japanese mills increased prodigiously, amounting to 41,000,000lbs., against 42,527,042lbs. in the whole of 1890 and 44,000,000lbs. in 1891. In spite of the large production the demand

FOREIGN COMPETITION IN THE EAST.

was greater than the supply. The total production for this year is expected to reach 100,000,000lbs. Of the ten largest mills only two paid dividends under 10 per cent for the six months, while others paid 25, 20, 19, 18, 15, and 10 per cent. The counts spun were mostly low, ranging from 11's to 16's and 20's, so that the importation of Bombay yarn had been more affected than that of Lancashire. The importation of American cotton for spinning finer yarns is rapidly increasing, and some of the mills are now spinning 30's and 40's.

45. The import of raw cotton into Japan from China, India, the United States, and other countries for the years 1886, 1889, and 1890 is shown in the following table :—

TABLE No. 13.

Raw Cotton from	1886.		1889.		1890.	
	Ginned.	Unginned.	Ginned.	Unginned.	Ginned.	Unginned.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
China	6,168,265	1,760,178	30,338,785	50,445,910	22,381,670*	30,779,606
India	22,956	867,756	427,123	312,774	10,001,288†	7,140
United States	553	....	95,444	....	2,372,029‡	....
Other Countries ..	....	8,000	29,440	4,301,633	24,138	3,956,463
Total	6,191,774	2,665,934	30,890,792	55,060,367	34,779,125	34,743,209
Total converted into ginned cotton ..	....	7,077,085	....	49,244,246	....	46,360,194

46. The effect of the competition of the Japanese cotton spinning mills on the import of cotton yarn from the United Kingdom and Bombay into Japan can be seen from the following table, showing the imports of cotton yarn for the years 1887-91. The figures for 1888 portray the highest point reached :—

TABLE No. 14.

Year.	United Kingdom.	Bombay.
	lbs.	lbs.
1887	21,507,000	22,613,000
1888	30,841,000	32,019,000
1889	24,724,000	31,996,000
1890	23,734,000	18,511,000
1891	17,007,000	6,048,000

47. The only cotton weaving mill in Japan was purchased in 1888 by a cotton spinning company to secure a constant outlet for their

* Increased in 1891 to 24,013,352lbs. † Increased in 1891 to 35,327,393lbs.
‡ Increased in 1891 to 7,054,881lbs.

FOREIGN COMPETITION IN THE EAST.

yarns. The cloth woven by this mill is probably of a very poor quality, for our Consul, in referring to the mill, says: "Were it not for the fact that, in order to stimulate the home industry, the Japanese Government have transferred to this company the large order for cotton cloth for the underwear of the army, which was previously placed in England, the working of this establishment would probably show a loss, for there appears to be little demand for the cloth woven." In 1891 Shanghai took 37,387 pieces of Japanese cotton cloth, and Canton took 4,446 pieces of the same cloth. The export of this cloth to Canton reached 49,114 pieces in 1887. The largest export of these goods appears to be to Corea, which in 1891 took 244,033 pieces.

48. The only other Japanese mills weaving with foreign machinery are silk mills; a jute mill, capable of turning out four thousand bags in ten hours; and a woollen mill, the property of the War Office. The latter mill consumes about 1,000,000lbs. of wool a year, and is engaged in making cloth for soldiers' great-coats and uniforms, and a finer cloth for the uniforms of officers. It likewise turns out flannel for the underclothing of the army. It runs twenty-two hours a day, with two sets of hands, the night work being performed by electric light. The hands are engaged to work for nine hours, and receive extra pay for the two hours' overtime. The 510 hands employed in this mill consist of 210 men and 300 women; their average pay is respectively 9½d. and 5d. per day.

HOURS AND WAGES IN JAPANESE COTTON MILLS.

49. Cotton spinning mills run day and night in Japan, the operatives working in two gangs, changing every week from day to night duty, or *vice-versa*. The mills are open six days a week. Each gang works twelve hours at a stretch, reduced to eleven by three intervals, aggregating one hour, which are allowed for meals. Wages range from 4d. to 8d. a day for men, and from 2d. to 5½d. a day for women. The number of hands employed in the industry is 21,430, of whom 16,010 are women. The average wages for men are under 6d., and for women under 3d.

CONTINENTAL COMPETITION IN THE COTTON TRADE OF THE EAST.

50. The development of cotton manufacture on the European system in India, Japan, and more recently in China, joined to the growing manufacture on the Continent of Europe, and in the United States, Canada, Mexico, and Brazil, and its recent institution in our Australian colonies, together with the closing to us by hostile tariffs of many markets where formerly we did an extensive trade, and the consequent over-production and restricted margin of profit to our

FOREIGN COMPETITION IN THE EAST.

manufacturers, has given rise to a lack of confidence in the future of our cotton industry and to prophecies of its early collapse. Deferring to later paragraphs the consideration of the Indian and Chinese competition, I pass on to that of the Continent and the United States.

51. The continental rivalry in the cotton trade of the East is still in its infancy, but the infant is growing apace and each year becomes more dangerous as an antagonist. Table No. 15 shows the exports of cotton yarns and manufactures from Belgium, France, and Germany to the East for the year 1889.

TABLE No. 15.

	BELGIUM.		FRANCE.	GERMANY.	
	Yarns.	Piece-Goods.	Piece-Goods.	Yarns.	Piece-Goods.
	lbs.	lbs.	lbs.	lbs.	lbs.
British East Indies.....	36,203	77,501	306,669	882	234,726
French „ .....	...	...	270,528	...	...
Dutch East Indies and Philippines .....	...	14,683	39,978	2,645	143,701
Africa (excluding Algeria and Egypt) .....	...	...	518,544	*4,408	278,145
French Indo-China.....	...	...	1,275,677	...	...
China and Hong Kong	*9,742	43,267	32,458	...	...
Japan.....	...	2,449	43,397	...	†34,603
Egypt	61,309	49,563	383,378	13,224	51,574

52. These imports may at first sight appear to be paltry, but they form the thin edge of a wedge that is being rapidly and persistently driven in. Six years previously, in 1883, the Belgian exports of cotton tissues to the British East Indies amounted to 1,818lbs.; to the Philippines, to 456lbs.; to China, to 10,659lbs., reaching 95,504lbs. in 1888; and to Africa, to 20,433lbs. The French exports of cotton tissues to the British East Indies in 1883 amounted to 92,542lbs., and increased in 1887 to 544,791lbs. Their exports to the French Indies were nothing in 1883. In that year they exported 5,697lbs. to China and 17,167lbs. to Japan. The French exports to French Indo-China, favoured by an exclusive tariff, commenced in 1888. Another of its possessions, Algeria, favoured by a similar tariff, took 14,112,961lbs. of its cotton tissues in 1891.

53. The German export of cotton goods to the East has rapidly forged ahead, increasing fourfold in the six years 1883-89. In 1883 its exports to Egypt were 18,734lbs.; to British India, 64,577lbs.;

* In 1888; none in 1889. † In 1887; none in 1888 and 1889.

FOREIGN COMPETITION IN THE EAST.

to the Dutch East Indies and Philippines, 52,676lbs.; and to Africa (excluding Egypt and Algeria), 43,419lbs. Austria, Holland, Switzerland, and Russia have also commenced pushing their cotton goods in the East. In 1891 China imported 28,400 pieces of Dutch drills and 47,511 pieces of Dutch jeans.

54. In 1890 Russia exported 1,836,000lbs. of cotton goods to Persia, valued at £200,000. In the same year she sent 684,000lbs. to Central Asia, 36,000lbs. to Turkey, and 36,000lbs. to Roumania. In 1891 her exports to Turkey and Roumania increased in each case to 72,000lbs.; and in that year she sent a similar amount across her Asiatic frontier into China. Her total exports of cotton goods in 1891 were valued at £2,100,000, of which £1,600,000 passed over her European frontier, and the remaining £500,000 over her Asiatic border. This Russian export is certain to increase, particularly when the Russian railway is completed which is now being constructed across Asia in the neighbourhood of the northern frontier of China. Russia now occupies the fourth place in the world as a consumer of cotton, coming immediately after England, France, and Germany. The value of her cotton manufacture exceeds £26,000,000 sterling, and at the Paris Universal Exhibition her cotton goods were almost unanimously awarded the first place. No foreign yarns under 60's have a chance of finding a sale in Russian markets.

UNITED STATES COMPETITION IN THE COTTON TRADE OF THE EAST.

55. Our most formidable ultra-Asiatic rival in the export of cotton goods to the East is beyond question the United States. Between 1880 and 1890 the hands employed in her cotton spinning and weaving mills increased from 174,659 to 222,982; her consumption of cotton, from 1,570,343 bales to 2,240,510 bales; her spindles, from 10,653,435 to 14,168,941; and her looms, from 225,759 to 316,057. Since 1890 her spindles have increased to 15,497,300. Her position as a cotton growing and manufacturing country directly facing the markets in the China sea, and the rapid growth of her industries, joined with the energy and commercial enterprise of her people, all point to a determined struggle on her part to increase her Eastern trade. According to *Bradstreet's*, "The South has the mill by the cotton-field; it has water powers which operate all the year; it has cheap labour, cheap land, and cheap food." With such advantages it is not surprising to find the same authority stating that "many kinds of protected cotton goods are as cheap here (United States) as they are in Lancashire, and the movement for all kinds is towards lower prices."

56. The yearly export from the United States of cotton piece-goods for the five years 1872-76 averaged 29,594,880 yards. In the years ending June 30, 1891 and 1892, they averaged respectively

FOREIGN COMPETITION IN THE EAST.

174,546,272 yards and 183,754,000 yards. The export for 1892 was, therefore, more than six times as large as the average yearly export in 1872-76. Her exports of cotton piece-goods to the undermentioned Eastern markets in the years ending June 30, 1884, 1888, 1889, and 1890, are given in Table No. 16.

TABLE No. 16.

From United States to	Year ending June 30.			
	1884.	1888.	1889.	1890.
	Yards.	Yards.	Yards.	Yards.
British East Indies	2,573,960	6,172,936	3,374,001	4,179,832
Dutch East Indies .....	....	11,152	....	1,089
Philippines .....	....	26,969	3,530	47,430
China	45,281,477	49,435,050	24,105,229	19,369,356*
Hong Kong	106,926	155,369	474,340	183,732
Japan	88,186	715,760	348,651	1,804,425
To all Countries (coloured) ..	35,441,296	54,446,936	40,856,329	42,309,770†
To all Countries (uncoloured).	99,750,450	115,776,679	77,596,862	75,716,490†

DEVELOPMENT OF COREAN TRADE.

57. Opposite to Japan is the Chinese dependency of Corea, which has a population of about ten and-a-half million souls. Its trade is advancing steadily, increasing in value from \$2,059,583 in 1885 to \$8,622,812 in 1891. The increase in its foreign imports from \$1,671,562 to \$5,256,468 is all the more worthy of note because \$2,819,567 of the latter amount represent cotton goods, chiefly from the United Kingdom. With reference to cotton goods, our Consul at Fusan notes in his report for 1891 :—

Japanese cotton goods exhibit a very decided improvement over the 1890 statistics, gaining each year more favour with the Corean on account of its cheapness and convenient dimensions for clothing. Quite recently Japan has met a new and brisk demand which has arisen in Fusan for a cheap, coarse-texture, blue-dyed cloth, made here into aprons and worn by native women of the labouring classes. This piece of cloth measures 28 feet long by 8 inches, comes across packed in bales of fifty pieces, and is sold in Fusan at \$0.30 per piece.

58. Like Japan, Corea is making rapid progress. Of recent years it has imported machinery for crushing gold quartz and for paper and rice mills, the mills being worked by steam, and returning a good profit. The machinery of the paper mill and for quartz crushing is of American origin. Only two British steamers entered

* The export to China was 78,360,170 yards in 1887 ; 80,930,000 yards in 1891 ; and 65,859,000 yards in 1892.

† Decreased to 39,016,682 in 1891. ‡ Increased to 135,529,590 in 1891.

FOREIGN COMPETITION IN THE EAST.

the Korean ports in 1891, against 19 German, 30 Russian, 23 Korean, 381 Japanese, and 17 Chinese steamers. The German imports into Korea in 1891 were valued at \$245,562; those of the United States, at \$187,224; those of France, at \$72,164; of Holland, at \$26,138; of Austria, at \$18,297; of Belgium, at \$3,128; those of Russia, at \$952; and those of Great Britain and her dependencies, at \$2,935,024.

DEVELOPMENT OF MANUFACTURE BY EUROPEAN PROCESSES IN CHINA.

59. In my article on "The Development of our Eastern Markets," in the "Annual" for 1890, I pointed out the enormous strides made by China from semi-barbarism to civilisation within the previous thirty years. To show the change that has gradually come over the Chinese rulers in their attitude towards Western knowledge, science, and art, I cannot do better than quote the following passage from the memorial of Prince Kung to the Emperor of China in 1887 on the "Establishment of a College for the Cultivation of Western Science." He said:—

It is high time that some plan should be devised for infusing new elements of strength into the government of China. Those who understand the times are of opinion that the only way for effecting this is to introduce the learning and mechanical arts of Western nations. . . . As to the allegation that it is a shame to learn from the people of the West, this is the absurdest charge of all; for under the whole heaven the deepest disgrace is that of being content to lag in the rear of others. . . . Of the jealous rivalry among the nations of the Western ocean it is unnecessary to speak; but when so small a country as Japan is putting forth all its energies, if China alone continues to tread indolently in the beaten track, without a single effort in the way of improvement, what can be more disgraceful than this? . . . In conclusion, we would say that the object of study is utility, and its value must be judged by its adaptation to the wants of the times.

MANUFACTURE OF STEEL AND IRON FOR RAILWAY PURPOSES AT HANKOW.

60. The example and action of Japan has done more in forcing China out of its old grooves of thought than is generally understood. It was the action of Japan in invading Formosa which led to the commencement of telegraph construction by the Chinese, who built their first twenty miles of line from Foochow towards Amoy in order to get quick intelligence from Formosa. Further progress was, however, prevented at the time by the determined opposition of the neighbouring populace, and it was not until 1879, at the time of the Russo-Chinese complications over the treaty of Livadia, that telegraph construction commenced in earnest in China. In the same way the taking up of railway construction in earnest was due to complications with foreign Powers. The little line constructed

FOREIGN COMPETITION IN THE EAST.

between Shanghai and Woosung in 1876 was purchased and torn up by the Government, and up to the close of the Franco-Chinese war the only railway line working in China was a short colliery line at Kaiping. It was this war which led the Chinese to understand that railways were absolutely necessary for internal communication in times of war, and to the construction of 3ft. 6in. gauge railways in Formosa, the extension of the 4ft. 10½in. standard gauge Kaiping line to Shan-hai-kwan and to Tientsin, opened to Tientsin in 1888, and to the sanction of the Grand Trunk Railway of China in August, 1889. A hundred and thirty miles of the Tientsin Railway are opened, and sixty miles are in progress. Several other railways have been proposed by the governors and viceroys of various provinces in China, which have not yet received sanction. The one idea which has led the Chinese Government to improving means of communication has been the strengthening of their Empire against foreign aggression. So far is this the case that our Consul-General at Shanghai pointed out in his last report that—

Practically, whatever facilities for trade exist have all been introduced by foreigners, so far as they are permitted within the limits secured by treaty, viz., by placing lines of steamers carrying cargo at remarkably cheap freights between the various open ports on the coast, and on the great river, with accompanying advantages of wharves, jetties, &c. The moment you leave a treaty port, all cargo has to be moved in one or other of the good old-fashioned ways, which have been in vogue for the last thousand years or so, that is to say, by the coolie with his bamboo, the wheelbarrow, or on pack animals. Even on the magnificent system of waterways that pervade Central China, the old-fashioned canal boat is still laboriously poled along, the permission to use steam towage, except in a few solitary instances, being yet forbidden even to natives. Notwithstanding all this, more and more foreign manufactures are every year passing into consumption, and more and more native produce is being brought to the foreign market.

61. Railways in China, although made solely for military purposes, will greatly tend to the enhancement of commerce. Before many years, we shall probably find railways permeating China in all directions, and the Chinese system of lines connected with the Indian system by the line advocated by me before the Blackburn and District Chamber of Commerce, and in my article in the September number of *Blackwood's Magazine*, and reported upon by me at the instance of the Foreign Office. The construction of the Grand Trunk Railway, which is to run from Peking to Hankow, has been delayed by the determination of the Viceroy Tsang Chi-tung to carry it out with Chinese capital and Chinese material. With this end in view large ironworks for the manufacture of steel rails, steel for gun founding, and mercantile iron, with blast furnaces for the Bessemer and Siemen-Martin processes are being constructed near Hankow, and the machinery was ordered from England and is now probably in place. Three-

FOREIGN COMPETITION IN THE EAST.

quarters of a mile of railway have been laid at the works, and two locomotives are running. It is contemplated, in the first instance, to turn out one hundred tons of steel rails per day, and ultimately to increase the output to two hundred tons per day. A railway, seventeen miles long, has been made to connect the coal and iron mines with the river. The rails are laid on iron sleepers, both rails and sleepers being supplied from Germany. The wages of the coolies employed on the line were paid at the rate of 5d. a day. In spite of the low wages their work cost more than in England, because of their poor physique and the impracticability of getting them to work hard.

WOOLLEN MILLS IN KANSUH.

62. Other industries conducted with European machinery have lately been instituted in China which promise seriously to conflict with the extension of British trade. The most important of these are the textile industries. As early as 1880 woollen mills were established at Lanchou Fu, in the Chinese province of Kansuh, by Governor-General General Tso, although it seemed impossible that the heavy machinery required could be conveyed there. These mills were started by Germans, and are said to have since worked successfully. In Western China woollens are more suited to general use than in Central and Eastern China, where they are chiefly used by a few of the richer natives, and for blankets and in clothing of the troops. In these portions of China woollen clothing is an impossibility for six or nine months in the year, and is subject to mildew and the destructive ravages of moth, white ant, and cockroach when laid by; while wadded silk and cotton garments, which are not subject to their attack, are comfortable, light, and easy, and in the long run infinitely cheaper. The sale of woollen mufflers and blankets would well repay pushing; they are rapidly coming into vogue. The blankets are of a very cheap class, dyed red, and can be purchased for a dollar (three shillings) or less each. They are largely used by people travelling, being less cumbersome than wadded coverlets. The mufflers, or scarves, are preferred of audy colours. The better-off class of the population are addicted to wearing worsted stockings. Socks and stockings are, indeed, coming into common use at some of the treaty ports. I find that 5,000 dozen were imported into Canton in 1889.

COTTON CONSUMPTION AND MANUFACTURE.

63. It has often been thrown in our faces that we are a nation of shopkeepers. This term is even more applicable to the people of China. In describing them the celebrated Lazarite Father Huc, who traversed

FOREIGN COMPETITION IN THE EAST.

China in various directions and visited Mongolia and Tibet, says "The Chinese, that thorough nation of shopkeepers, with hearts as dry as a ship biscuit, and grasping as a monkey, who will not give a traveller even a cup of water except for money or money's worth." They are a trading nation with large requirements, and have been long celebrated for their silks, velvets, crapes, pottery, coarse cotton goods, and other hand-made manufactures. The rivers, swarming with craft of various descriptions, are great arteries of trade, and away from the waterways large caravans of merchandise are met with in all directions. China offers an enormous market for our goods if we will only make a careful study of its peculiar requirements, and sell, as we should be able to do, our machine-made goods to them as cheap as their own hand-made manufactures.

64. China is essentially a cotton-consuming country. The bulk of her immense population dresses in cotton from head to toe. So far as clothing for the masses is concerned, we have hardly begun to supply the China market. Examine a group at any inland town or village; nine out of ten are labouring men, and everyone of them are wearing homespun, more or less, and most of them nothing else. Every tenth man or so may have a jacket of some foreign fabric, or the lining of his wadded coat may be a shirting dyed blue. Even the soles of the boots and shoes are made of many layers of cotton. The Chinese use cotton bedding, bed curtains, mattresses, curtain for doors, awnings for stalls and for streets, and sails and awning for boats. For clothing and awnings the fabric principally in use is a strong material, 14 inches wide, dyed dark blue with indigo. The sails for boats are made of an undyed fabric, slightly stouter than English drills, also 14 inches wide, unbleached, and unsized, as the size in cloths renders them liable to rot when exposed to wet. Even the dead are splendid customers for cotton goods, many suits being used in their *longevity*, or grave clothes. According to the Rev. J. Doolittle, a missionary of great experience in China—

It is an established custom that if three garments are put upon the lower part of the person five garments must be put upon the upper part. The rule is that there must be two more upon the upper than upon the lower part of the corpse. Oftentimes there are nine upon the upper and seven upon the lower. Sometimes rich families provide as high as twenty-one pieces for the upper part of the corpse and nineteen pieces for the lower part. Probably among the middle classes about twelve garments are used for dressing a corpse for the coffin. After the grave clothes have been put on it is tightly bound around with several pieces of cloth, usually two are white and one is red. Over the corpse a piece of cloth is spread, and the cover is nailed down.

65. The ready-made grave clothes purchased by the poor, consisting of coats, pantaloons, skirts, &c., are sometimes pasted together, or, at the best, are but slightly basted together. The son who failed to dress his deceased father with several suits would be

FOREIGN COMPETITION IN THE EAST.

considered destitute of filial respect. A large portion of our cotton cloth sent to China is said to be used for the purpose of grave clothes, and to have too little wear in it for the ordinary clothing of the peasantry, and that made from Chinese and Indian yarn is of a rougher and warmer nature. To secure the custom of the peasantry we must place on the China market an article as soft, as durable, and as cheap as the cloths produced by the native looms, and about fourteen inches in width—the width best adapted for Chinese clothing. There has recently been discovered a method of weaving three or four narrow width goods at once, in one loom, with good selvages. This discovery will prove of the greatest importance to our cotton manufacturers, as it will enable them to readily compete with the Chinese homespun cloths. American drills and sheetings are said to be popular from their stoutness and strength, and are worn by all who can afford to pay a high price. Clerks, scholars, and the lower middle class, together with a few farmers and fishermen, buy the cheap English goods; but the great multitude of the people engaged on outdoor labour wear native Chinese cottons, which outwear three or four English fabrics.

66. Taking the population of China and its dependencies as four hundred millions, and allowing $12\frac{1}{2}$ yards of cotton tissue per annum for each inhabitant, China's yearly consumption of cotton cloth would be five thousand million yards, $8\frac{1}{3}$ times as much as was imported into China in 1891, and equal to the gross export of cotton piece-goods from the United Kingdom. Such a market is well worth cultivating, both for the sale of yarns and cloth. China's total import of cotton tissues in 1891 was probably not more than 600,000,000 yards. The 161,081,953lbs. of cotton yarn imported by it in 1891, allowing $4\frac{1}{3}$ yards to the pound, would be manufactured into about 700,000,000 yards of cloth. The remainder of the cotton cloth consumed in China must have taken about 850,000,000lbs. of Chinese-made yarn.

67. The expansion of our trade with China is seriously impeded by the action of guilds in monopolising the internal trade by forming "rings," and restricting that of merchants to dealings with them. It is likewise restricted by what the Customs' Commissioner at Chinkiang, in his report for 1890, termed "the inestimable treaty privilege of commuting all *en route* charges by a single payment at the port" being treated as a dead letter by the provincial authorities in Southern and South-western China. In writing on the latter subject, in his report for 1886, our Consul at Pakhoi remarked that—

Mr. O'Connor, lately H.M. *Chargé d'Affaires* at Peking (now our minister in China), observes in his report for the year 1885 on the foreign trade of China, dated June 12, 1886, that the progress of commerce "would certainly be trebled or quadrupled by a more loyal fulfilment of the transit pass system and any

FOREIGN COMPETITION IN THE EAST.

reasonable development of better means of communication.' If this view holds good of the empire generally, it is signally true of the extreme southern provinces—the two Kuang, for example. Here, so far as inward transit passes are concerned, it is not merely that the system is not loyally fulfilled, but that it is completely and purposely frustrated by the Provincial Government of Canton, whose fiscal necessities are directly interested in nullifying the inward transit pass stipulations of the treaties, an object which they have most successfully carried out. . . . The result is that in very extensive regions, in the growth of commerce in which European and American manufacturers are interested, it is immensely checked and hampered. . . . To the best of my knowledge, but little attention has been paid to this question by Chambers of Commerce at home, and even in Hong Kong, I understand, it is regarded as a subject of considerable tiresomeness.

68. From 1860, when the treaty of Tientsin gave the privilege and right to the European merchant to do business in the interior with the assistance of transit passes, up to 1886, not a single pass was issued in Canton. In that year a German firm insisted upon having passes, and thus succeeded in doing a considerable direct business with Kwangsi. Further issue of such passes was stopped by levying an illegal terminal tax on all goods conveyed inland under transit pass considerably higher than the taxes raised *en route* on goods not covered by transit passes. On October 22, 1890, I brought the subject prominently forward in the *Times*, and in February, 1891, entered fully into it before the Blackburn and District Chamber of Commerce, with the result that this important Chamber and its able and indefatigable president, Mr. Henry Harrison, took the matter up with zeal, and memorialised Lord Salisbury, then Secretary of State for Foreign Affairs, upon the subject. The outcome of this agitation has been that while no transit passes were issued at Canton in 1889, seventy-nine passes to the value of Hk. taels 195,117 were issued in 1890; and 1,946 passes to the value of Hk. taels 1,741,864 were issued in 1891. According to the Commissioner of Chinese Imperial Maritime Customs at Pakhoi, in his report for 1891, the Chinese officials on the Canton River have again resumed their pranks, and are stopping the use of transit passes by re-imposition of illegal taxation on goods covered by them, thus stopping trade on that river and diverting it to its former course *viâ* Pakhoi. Our Consul at Canton, in his report for the same year, remarks that—

Yet only one or two British subjects at this port make use of transit passes and no British merchant sends his goods under them to inland markets in any noticeable quantity. The *li-kin* officials, and the mandarins generally, are violently opposed to the transit pass system, and resort to all kinds of expedients to prevent the use of the passes becoming general.

In his report for the same year, our Consul at Chungking shows that the transit pass system in the wealthy province of Szechuen is being destroyed by similar illegal taxation. Such procedure on the

FOREIGN COMPETITION IN THE EAST.

part of provincial officials in Southern and Western China requires being put a stop to by firm expostulation with the Imperial Government. I am glad to learn that, at the instance of the China Association in London, the Manchester Chamber of Commerce has resolved to back up the expostulations of the Blackburn and District Chamber, and memorialise the Foreign Office on the subject. A memorial by itself is of no use in overcoming the lethargy of Foreign Office officials. The ordinary answer that "it will be attended to" means absolutely nothing. Such solitary memorials are nested in a pigeon-hole. Foreign Office officials require constant goading to keep them awake to the fact that they will have no peace until a certain required object is obtained. Our Chambers of Commerce should apply persistent pressure. They should incessantly clamour for the enforcement of our treaty rights in all parts of China. A department should be formed in the Foreign Office for the study, regulation, and conduct of our trade relations with China, and an official set over it and made responsible for the due performance of its duties. Until this is done our trade interests in China will continue to be neglected. What is everyone's business is no one's business. Responsibility must be fixed upon some individual official before any duty can reasonably be expected to be attended to.

69. The guilds, referred to in paragraph 67, farm the inland duties at some of the treaty ports, and thus create a monopoly. The effects of their action is well expressed by our Consul at Ningpo, who reported in 1885 that—

The existence of these companies affects very prejudicially the position of the foreign merchants established at this port, not so much directly, on account of the farming of the *li-kin*, as indirectly, on account of the monopoly thereby created. Now, by Article XIV. of the French Treaty of Tientsin, "no privileged commercial society may be established in China," and the same applies to any organised coalition having for its end the exercise of a monopoly on trade; but it is open to question whether the contracting for the payment of inland dues is in itself a contravention of this Article. At Ningpo, however, the consequence of such contracting, namely, the construction of a monopoly, is maintained by means which, if satisfactory proof could be procured, would certainly amount to a breach of the treaty. British merchants here have constantly assured me that if any member of the guild attempted to deal with them, except on such terms as the guild approved, and these would always include purchase at below cost price, he would be ostracised; and that if any non-member ventured to similarly infringe the rules of the guild, although he could in no legal sense be bound by them, he would be subjected to such persecution, by means of trumped-up charges or actual personal violence, as these associations in China well know how to employ. Hence, it may be taken as certain that the existence of the guilds, under their present organisation, is contrary to the intention and spirit of the treaties, and it would therefore be possible to suppress them. It would, however, be difficult, for, apart from the extreme unreadiness of any sufferer to give evidence against them, their establishment is in accordance with Chinese usage, and is, moreover, a convenience to the Provincial Government, and even a source of profit. For although the amount of the contract is very considerably less than the *li-kin* if

FOREIGN COMPETITION IN THE EAST.

collected separately might be expected to produce, still there is no loss by smuggling or through the venality of the barrier-collectors. The real question, as it concerns not the few middlemen established here, but the body of our home manufacturers, is, would the abolition of these guilds increase the consumption of their shirtings and other goods? At first sight it would appear to be the interest of the guilds. I am speaking, of course, of the trading guilds, to encourage the consumption of the commodities the *li-kin* on which they have contracted for; since in this way each individual member of the guild would pay less *li-kin* per ton, picul, or piece, as the case might be, and so obtain a better market or a larger profit. Against this, however, is the tendency always exhibited by monopolies to discourage consumption by their power of demanding an excessive price. Moreover, for it must be borne in mind that we have to deal in this matter with Chinese and not foreign merchants, the personal element must not be neglected. Nor should be forgotten the strong conservative tendency of the Chinese to protect their home cotton manufactures, and pronounced disinclination to bring foreign fabrics into competition therewith. In the present instance, besides, they are led by the fear lest any large profits on their part should be followed by an increased sum to be demanded for their privileges, and, to avert this, actually keep down the import of foreign goods.

Other instances frequently crop up in our consular reports. In his report for 1890, Mr. Gardner, our Consul at Hankow, remarks:—

There is a reason why our fabrics have not obtained a greater sale in this market, and that is, that the native dealers in foreign fabrics have succeeded in forming a species of “ring,” and, in order to maintain their selling prices, use every effort to prevent a large importation.

COTTON MILLS AT HANKOW.

70. In connection with Chinese competition in cotton goods it is noteworthy that our Consul at Hankow remarked, in his report for 1891 in connection with the cotton mills at that place, that—

As the object of the Viceroy's cotton mills is to compete, not with native fabric—which is coarse in texture—but with the foreign, he designs, I understand, to import from time to time a quantity of American cotton.

71. Chinese cotton is only suitable for counts up to about 16's. If finer counts are required this cotton has to be mixed with Egyptian or American. The millhouse is 530 feet long by 457 feet broad. It is to contain two openers, 10 scutching machines, 90 carding engines, two grinding rooms each holding two machines, 27 drawing frames, 80 slubbing machines, 124 intermediate, 35 roving frames. The spinning room is to be 220 feet by 100 feet, and is to contain 34,000 spindles. In full work it will employ 500 females. A damping cellar, 10 winding frames, 16 warping machines, four slasher sizing machines with tanks, drawing and twisting-in room. The loom shed is to be 264 feet by 220 feet, and is to contain a thousand looms for grey and white shirtings, brocades, &c. It is estimated that 28,000 yards will be produced a day. Much of the cotton ginning in China is now done with imported machinery.

FOREIGN COMPETITION IN THE EAST.

COTTON MILLS IN SHANGHAI.

72. The two mills in Shanghai started running one at the end of 1890 and the other in 1891. In reference to the cotton cloth weaving mill, a semi-official establishment, our Consul at Shanghai, in his report for 1891, says :—

The erection of the mill and its general control, so far as working is concerned, have been under the management of an American gentleman from Massachusetts, to whom no small credit is due for having grappled successfully with the many difficulties incident to the installation of a concern of the kind. So far as it has gone it has demonstrated satisfactorily what was long disputed, that Chinese cotton can be woven into cloth of a superior quality. The cloth turned out is an imitation of American drills and sheetings, 36 inches wide and made up in pieces of 40 yards in length, average weight 14lbs. The present selling price in the Shanghai market is for drills 2·32 taels and 2·40 taels, and for sheetings 2·35 taels and 2·42 taels per piece. The working power of the mill at present is 550 looms and 21,000 spindles, and the turnout is 130,000 yards per week. There are at present four foreign employés, but doubtless some of these will soon be dispensed with. All the operatives are Chinese, who have been trained to the work within the brief period since the mill began, and they do their work quite as efficiently as foreign hands, though in some departments double the number is still required. The weekly wage for female hands runs from \$1 to \$1½, say 3s. to 4s. 6d., and for males from \$1½ to \$4, or 4s. 6d. to 12s. Cotton, ginned, costs, delivered at the mill, 10 taels and 11 taels per picul, or say 3½d. to 3¾d. per lb.

73. With reference to the spinning mill, our Consul remarks in the same report that—

Another venture in the same direction is a mill for the production of cotton yarn similar to that imported from Bombay. This company is also purely native, and, with the exception of two foreign employés as superintendents, is entirely run with native hands. The machinery is English, and I understand is of the best description, specially adapted to the manipulation of Chinese cotton. The production is eight bales per day of 400lbs. each, and it finds a ready sale at what is understood to be very remunerative rates. There seems every reason to expect that yarn spinning, now that the thing has once been started, will soon develop into a very large industry in Shanghai. The experience gained so far tends to show that yarn can be produced here at least as cheaply as in Bombay, and considering the enormous import of last year and the rate at which the demand continues to grow, there would seem to be room for fifty mills of the capacity of the present one before the demand can be overtaken. Whether the cotton cloth mill is likely or not to meet with the same measure of success as the yarn mill remains to be seen, but at the present moment it is somewhat doubtful. That a well-managed concern would hold its own in the production of strong coarse fabrics is probable, perhaps certain, but good management is a thing not to be obtained with Chinese directors. As an instance of the divided counsels that prevail on the board of this particular company, it may be mentioned that half the looms are of English and half of American manufacture, that having been the result of the difficulty in agreeing on such a fundamental point as the supplying of the machinery. One party wished the order to go to England and the other to America, and as neither would give way the result was the compromise above stated.

74. According to Mr. James Cocker, of Oldham, who started and managed this mill, and has served as a mill manager for some years in Bombay:—

FOREIGN COMPETITION IN THE EAST.

In India the cotton mills work fully 35 per cent more time than in this country. As regards the difference in the cost of spinning between India and China, it is as follows:—First, it costs the Indian spinner fully one cent per pound to place his yarn in the consuming markets of China. Second, the cotton in China is more economical to work than Indian-grown cotton, as 12 is to 17, or 66 of a cent. Coal is 33 per cent cheaper, and the climate of China is much better than India for spinning. Total of advantages in the geographical position of China:—Carriage in cents, 100; cotton, 66; coal, 18; climate, 12; total, 1·96. There are some advantages that the Indian spinners have that China is debarred from, namely, cotton grown in China requires from 7 to 10 per cent more twist in the different yarns spun than Indian cotton. The plant costs about 6 per cent more than in India. The difference in the net cost in spinning between India and China is 1·45 (·522d. per lb. taking the dollar at three shillings) in favour of the latter. We Lancashire people want nothing more than what we are willing to grant to others, but is it fair that any Government should grant a privilege to one part of its dominions and debar by law the same privilege in another, and both of them competing for honest trade in the neutral markets of the world?

COTTON SPINNING MILL IN TONQUIN.

75. Another competitor in machine manufacture of cotton freshly risen in the East, which promises to grow formidable, is France in Tonquin. A cotton factory of 10,000 ring spindles is being fitted up in that French possession to work up the native cotton, and especially the new cotton from American seed, which is said to flourish well in Tonquin. If growing cotton from American seed proves a success in Tonquin, it will before long be planted in China. In that case local competition of Chinese mills will prove far more formidable to Lancashire than it can be while cotton has to be imported from America.

DEVELOPMENT OF COTTON MANUFACTURE
IN INDIA.

76. When studying the Second Report of the Commission on Trade Depression, I was struck with the truth of the following statement made by Mr. Stuttard, one of our largest cotton spinners. Asked as to the most promising markets for the British cotton trade, he replied: "Undoubtedly India is the best of all. On India we rely, and if we lose India, Lancashire is practically ruined." And he gave his opinion that English spinners could easily beat the Bombay manufacturers if the latter worked their mills under the same humane regulations which prevailed in England with regard to the hours of labour. Since the sitting of the Commission the gold value of silver has fallen greatly, and largely increased the advantages the Bombay and other Indian millowners possess over their Lancashire rivals. India, having captured our trade in coarse cotton

FOREIGN COMPETITION IN THE EAST.

yarns and coarse cotton piece-goods by this fall in exchange, cheap labour, and by the long hours worked by Indian operatives, has been able to compete with us in medium and even in fine counts. Some of the Indian mills are now engaged in spinning 30's and 40's from Indian cotton, and have gone so far as to spin 50's from cotton imported from Egypt, and are every year importing more and more cotton from America and Egypt to compete with us in manufacturing from and spinning medium and fine counts of yarn. In the year ending March 31, 1890, her import of this non-Asiatic long-stapled cotton was only 638 cwt.; in the following year it increased to 4,071 cwt.; and last year, to 16,164 cwt. Our cotton trade with India is at a standstill, and is threatened with collapse by the unfair competition of the Indian mills.

77. The first cotton mill built in India was erected in the Island of Bombay by the Bombay Spinning and Weaving Company, formed about 1851. This mill commenced working in 1854, and was followed by the "Oriental" in 1855, and the "Throstle" in 1857. By 1865 there were ten mills working in the island, with 249,984 spindles and 3,378 looms. These mills employed 6,557 hands, and consumed 42,000 bales of cotton, each bale averaging 392lbs. In 1872 another mill was added, followed by three more in the following year. In 1874 the mills in the island numbered fifteen, and four more were working in other parts of the Bombay Presidency and eight elsewhere in India, making in all twenty-seven. Table No. 17 shows the progress of cotton mills in India from their commencement to the year ending June 30, 1892, as given by the India Millowners' Association:—

TABLE No. 17.

Year ending 30th June.	Mills.	Spindles.	Looms.	Hands Employed.	Cotton Consumed. Bales of 392lbs.
1854.....	1	?	?	?	?
1861.....	12	338,000	?	?	65,000
1874.....	27	593,000	?	?	114,000
1880.....	56	1,461,590	13,502	44,410	307,631
1885.....	87	2,145,646	16,537	67,186	596,749
1886.....	95	2,261,561	17,455	74,383	643,204
1887.....	103	2,421,290	18,536	76,942	726,276
1888.....	114	2,488,851	19,496	82,379	786,982
1889.....	124	2,762,518	21,661	91,598	888,654
1890.....	137	3,274,196	23,412	102,721	1,008,462
1891.....	134	3,351,694	24,531	111,018	1,178,906
1892.....	139	3,402,232	25,444	116,161	1,165,938

FOREIGN COMPETITION IN THE EAST.

78. Sixty-five of the mills, containing 1,934,716 spindles and 14,900 looms, are working in the Island of Bombay. These employ on an average 65,087 hands, and last year consumed 728,598 bales of cotton. Their paid-up capital aggregates Rx.5,389,875. Three other mills are in course of erection in the island. These will contain 131,320 spindles and 1,720 looms. In other parts of the Presidency there are twenty-eight mills, with 445,462 spindles and 4,217 looms. Two of these were added in 1892. Thus the five additional mills in India are situated in the Bombay Presidency.

79. The destination of cotton yarns and cotton piece-goods manufactured in the Island of Bombay mills in the year ending March 31, 1891, outside those locally consumed, is shown in Table No. 18.

TABLE No. 18.

Exported to	LENGTH AND WEIGHT.			Value.
	Piece-goods.		Yarns.	
	Yards.	lbs.	lbs.	Rx.
Foreign Ports...	54,340,000	12,540,000	158,390,000	6,811,400
Indian Ports ...	42,820,000	9,890,000	23,040,000	1,565,500
Up country by rail	87,790,000	20,260,000	*6,190,000	1,517,700
Total	184,950,000	42,690,000	188,340,000	9,894,600

COMPETITION OF INDIA IN COTTON MANUFACTURE.

80. Allowing 20 per cent for wastage, the yarn spun from the 1,165,938 bales of cotton consumed by Indian mills in 1891-92 amounted to 365,638,157lbs.; deducting from this the 161,253,206lbs. of Indian yarn exported in that year, 204,384,951lbs. would be left for manufacture by Indian looms. To this residue has to be added 48,755,496lbs. of imported yarn kept for home consumption, out of the gross import of 50,404,318lbs. The net amount of machine-made yarn kept for Indian use in 1891-92 therefore aggregated 253,140,447lbs. As the piece-goods made in the Bombay mills average $4\frac{1}{3}$ yards to the lb., we may assume that the yarn is manufactured into 1,096,941,937 yards of cloth. The sum total of Indian manufacture of machine-made cotton yarns and cotton cloth in

* About the same amount of yarn is forwarded to Bombay from up country mills for export and local consumption, thus virtually cancelling the despatches of the local mills by the same route.

FOREIGN COMPETITION IN THE EAST.

1891-92 therefore consisted of 1,096,941,937 yards of cloth—73,383,941 yards of which were exported—and 161,253,206lbs. of yarn for export. The tissues are partly made in the mills and partly by hand looms.

81. Table No. 19 shows the import of cotton yarn and cotton piece-goods into India, and the export of Indian cotton yarn and Indian cotton piece-goods from India in the years ending March 31, 1878-92.

TABLE No. 19.

YEAR.	IMPORT.			EXPORT.	
	Cotton Twist and Yarn.	Cotton Piece-goods.	Cotton Thread.	Cotton Twist and Yarn.	Cotton Piece-goods.
	lbs.	Yards.	lbs.	lbs.	Yards.
1877-78	36,194,125	1,358,860,871	762,913	15,600,201	17,545,464
1878-79	33,145,651	1,127,731,573	798,870	21,333,508	22,661,231
1879-80	33,212,952	1,333,740,988	670,404	25,862,474	25,800,201
1880-81	45,876,575	1,776,507,240	935,467	26,901,346	30,424,032
1881-82	40,761,751	1,624,452,046	613,003	30,786,304	29,911,017
1882-83	44,859,175	1,642,799,991	854,471	45,221,000	41,563,000
1883-84	45,378,956	1,724,095,627	689,883	49,876,606	55,564,513
1884-85	44,799,637	1,734,098,073	941,125	65,897,183	47,908,513
1885-86	45,915,123	1,743,377,782	882,148	78,241,771	51,527,624
1886-87	49,013,979	2,155,713,385	964,801	91,804,244	53,360,383
1887-88	51,542,549	1,839,118,352	907,873	113,451,375	69,434,690
1888-89	52,587,181	2,126,552,723	945,391	128,906,764	70,244,227
1889-90	46,382,525	1,997,232,602	839,962	141,949,951	59,495,551
1890-91	50,970,950	2,013,023,662	1,164,989	169,275,304	67,665,939
1891-92	50,404,318*	1,882,687,999†	1,121,350‡	161,253,206	73,383,941

82. It is evident from Table No. 19 that between the years ending March 31, 1887 and 1892, the yearly export of Indian cotton yarn increased by 69,448,962lbs.; and the yearly export of Indian cotton piece-goods increased by 20,023,558 yards. This increase of piece-goods would require, at $4\frac{1}{3}$ yards to the pound, 4,620,821lbs. of yarn for its manufacture. The increased export of these articles taken together accounts for 74,069,783lbs. of Indian machine-made yarn. From Table No. 17 we find that in the same period the yearly outturn of cotton yarn from Indian mills increased by 137,878,003lbs. Including re-exports, the yarn imported for Indian use increased by 1,060,765lbs. The increased amount of yarn manufactured in Indian mills and imported into India for Indian use therefore aggregated 138,938,768lbs. Deducting from this amount the export of Indian yarn and yarn used in India's exported manufactures, we get a

* 49,361,855lbs. from the United Kingdom.

† 1,864,943,843 yards from the United Kingdom, 38 per cent of our gross export of cotton piece-goods. ‡ 1,066,641lbs. from the United Kingdom.

FOREIGN COMPETITION IN THE EAST.

remainder of 64,868,985lbs. of yarn for home consumption in cloth for India in 1891-92 in excess of the consumption in 1886-87. This amount of yarn, at $4\frac{1}{3}$ yards to the pound, would be turned into 281,098,902 yards of piece-goods for use in India. In the five years ending March 31, 1892, the yearly export of Indian machine-made cotton yarns increased from 91,804,244lbs. to 161,253,206lbs., or by over 76 per cent; the export of Indian cotton piece-goods made from machine-made yarns has increased from 53,360,383 yards to 73,383,941 yards, or by over 37 per cent; and the manufacture of cotton cloth from machine-made yarns in Indian mills and hand looms for consumption in India has increased from 742,459,064 yards to 1,023,557,996 yards, or by nearly 38 per cent.

CONSUMPTION OF COTTON GOODS IN INDIA.

83. The two hundred and eighty-eight million inhabitants of India in the year ending March 31, 1892, consumed 1,023,557,996 yards of cloth made from machine-made yarn, and 1,882,687,999 yards of imported cloth coming chiefly from the United Kingdom, a total of 2,906,245,995 yards, equivalent to over ten yards per head of the population. To this amount has to be added the cloth made from about 200,000,000lbs. of cotton spun by hand; allowing 20 per cent of the cotton for wastage, and taking $4\frac{1}{3}$ yards of cloth to the pound of yarn, this would be 693,333,333 yards. Thus the total yearly consumption of cloth by the people of India aggregates about 3,600,000,000 yards, or $12\frac{1}{2}$ yards per head, or nearly double the amount we export to that country.

EXPORTS OF INDIAN TEXTILE MANUFACTURES.

84. In 1891-92 India exported 161,253,206lbs. of cotton twist and yarn, valued at Rx.5,771,033; 73,383,941 yards of grey, white, coloured, printed, or dyed cotton cloth; 1,938,177 handkerchiefs and shawls in piece; and 4,226,533lbs. of other cotton manufactures; the manufactures, excluding twist and yarn, being valued at Rx.1,264,002. Her export of flax yarn and manufactures was but small, valued at Rx.1,316. Her export of hemp, silk, and wool manufactures were valued at Rx.228, Rx.183,957, and Rx.94,788 respectively.

85. The rapid increase of India's export of cotton yarn and piece-goods and jute manufactures to various markets in the last three years is especially noticeable. Aden, Arabia, China, Persia, the Straits Settlements, and Turkey, as well as several minor markets, have largely increased their take of cotton yarn; while the East Coast of Africa, Arabia, Ceylon, China, Persia, the Straits Settlements, and other countries, have improved their take of Indian cotton

FOREIGN COMPETITION IN THE EAST.

piece-goods. With reference to the rapidly increasing take of Indian yarn by China to be manufactured with Chinese weft into cloth, I may point out that this must mean increased domestic manufacture of cloth in China, and a decreased import of British and foreign cloth into that country. The growth of Indian competition implies decreased consumption of British cotton goods in India, China, and other markets. Table No. 20 shows the export of Indian cotton twist and yarn and cotton manufactures to the principal markets during the last three years :—

TABLE No. 20.

	1889-90.	1890-91.	1891-92.
Cotton twist and yarn—	lbs.	lbs.	lbs.
To Aden	1,759,395	1,852,122	2,251,291
„ Arabia	280,525	298,810	440,320
„ China	114,151,360	151,050,409	145,558,753
„ Japan	22,686,714	11,876,422	6,682,050
„ Java	374,470	533,265	284,090
„ Persia	151,951	323,723	392,369
„ Straits Settlements ...	1,678,089	2,044,686	3,987,184
„ Turkey in Asia	571,600	943,150	941,370
„ Other Countries	295,847	352,717	715,779
Total.....	141,949,951	169,275,304	161,253,206
Cotton piece-goods—	Yards.	Yards.	Yards.
To United Kingdom	1,058,407	223,911	423,745
„ Abyssinia	1,962,112	3,939,765	1,773,288
„ East Coast of Africa...	21,526,118	25,508,611	27,835,352
„ Aden	14,809,627	12,684,724	11,765,199
„ Arabia	1,672,463	2,643,551	3,209,133
„ Ceylon	5,741,990	6,542,899	6,717,966
„ China	1,436,570	5,537,569	7,353,752
„ Persia	1,183,031	930,296	1,715,512
„ Straits Settlements ...	5,073,614	5,497,741	6,318,669
„ Other Countries	5,031,619	4,156,872	6,271,325
Total.....	59,495,551	67,665,939	73,383,941
Handkerchiefs and shawls in the piece.....	No. 1,224,019	No. 1,868,988	No. 1,938,177
Other sorts	lbs. 1,462,035	lbs. 2,640,796	lbs. 4,226,523

FOREIGN COMPETITION IN THE EAST.

86. The jute industry of the United Kingdom is largely dependent for its continued existence upon its market in the United States. In 1891 the United States alone took 172,997,000 yards of jute piece-goods out of our total exports to all countries of 283,961,300 yards. This export is threatened with extinction from two competitors—the home competitor in the United States aided by protective tariffs, and the Indian competitor aided by cheap labour, inhuman work-hours, and by the decline in the gold value of his silver currency. With reference to this dual competition, it will be well to quote the following particulars, which appeared in a letter from its own correspondent at New York, which appeared in the *Textile Mercury* of October 8, 1892. The correspondent wrote:—

During the fiscal year ending June 30, 1881, our imports of raw jute were only 51,455 tons. Last year they amounted to 138,874 tons. These figures indicate a development in the jute trade of the Republic, which may in great part be ascribed to the increase in the use of the material as a backing for carpets, linoleums, and other goods. Notwithstanding the growth of the home industry, it is noteworthy that our supplies of the manufactured article drawn from abroad have also increased; and, further, that so far as the Eastern States (as distinguished from the Pacific) are concerned, we have brought a new source of supply into existence. In 1881 Dundee practically monopolised all the Eastern U.S. demand not supplied by home production, exporting to this country an aggregate of 124,000,000 yards, of which 22,500,000 yards were in the form of bags, and shipping besides 5,800,000lbs. of yarn. In the same year the shipments from India were entirely to the Pacific ports, the first to the Atlantic ports being in 1882, when they were only 289,000 yards. In 1891 the shipments from Calcutta to the Atlantic ports had risen to 35,500,000 yards (cloth and bags).

87. The exports of Indian jute manufactures to its chief customers during the three last years is shown in Table No. 21, where the rapid strides made in the export to Egypt, the Straits Settlements, and the United States is particularly noticeable.

TABLE No. 21.

	1889-90.	1890-91.	1891-92.
Jute gunny bags—	No.	No.	No.
To United Kingdom ...	21,591,413	19,540,052	14,461,500
„ Cape Colony	2,736,100	1,916,850	3,529,890
„ Egypt	2,011,000	2,710,500	4,317,775
„ South America	8,484,800	5,187,800	6,671,700
„ United States	6,133,100	13,442,400	19,513,106
„ China.....	10,812,750	7,320,650	10,277,685
„ Straits Settlements.	11,137,558	12,504,539	13,880,000
„ Turkey in Asia.....	1,908,725	2,563,135	3,474,425
„ Australia	21,027,153	22,889,117	18,834,915
„ Other Countries ...	11,573,296	10,674,373	11,289,616
Total	97,415,895	98,749,416	106,250,612

FOREIGN COMPETITION IN THE EAST.

TABLE No. 21.—*Continued.*

	1889-90.	1890-91.	1891-92.
Jute gunny cloths—	Yards.	Yards.	Yards.
To United Kingdom ...	10,628,379	2,266,750	303,300
„ United States	19,721,200	22,058,400	32,317,429
„ China.....	3,861,859	2,663,645	2,305,945
„ Other Countries ...	2,932,569	2,865,234	2,362,626
Total	37,144,007	29,854,029	37,289,300
Rope and twine	cwt. 8,913	cwt. 6,609	cwt. 2,482
Other kinds.....	13,428	8,973	619
Total of Jute...value	Rx. 2,791,242	Rx. 2,481,961	Rx. 2,513,100

GROWTH OF INDIAN COMPETITION.

88. It is daily becoming more evident to manufacturers engaged in our jute and cotton industries that, owing to factory legislation in this country compelling them to treat their operatives as human beings should be treated and the absence of such merciful restrictions in India, they are unable to compete with their Indian rivals in all such branches of manufacture in which the latter may choose to compete. The effect of this unfair competition upon Lancashire is well depicted in last year's report of Mr. Henderson, H.M. Superintending Inspector of Factories for Scotland and the North of England. He said :—

The condition of affairs in Lancashire at the present time is regarded by some who have had long experience of the trade as very critical. For a long period there has been a growing tendency on the part of private capitalists to withdraw from the business. I referred to this last year in some remarks I made with respect to the Blackburn district, and they are applicable to a much wider area. It is distressing to witness the havoc which has been made in some of the picturesque valleys of Lancashire by the pressure of modern emulation and competition. Factories and cottages closed and untenanted, many of them unroofed and in ruins, meet the visitor almost at every turn, and they give some indication of the great sacrifice of capital which must have been made before the present hopeless condition of things has been reached.

89. The coarse yarn trade of the valleys running through Rossendale, Todmorden, and Hebden Bridge, and the coarse goods trade of

FOREIGN COMPETITION IN THE EAST.

Rawtenstall, Newchurch, Bacup, Crawshawbooth, Walsden, Littleborough, Todmorden, and Hebden Bridge, had been destroyed by Indian competition before the meeting of the Bombay and Lancashire Spinning Inquiry of 1888. In the course of that inquiry it was proved that three of the Bombay mills had commenced spinning 30's counts of yarn, and that therefore the Indian millowners had commenced competing in medium counts. This meant further destruction to the Lancashire industry, further "havoc" in the "picturesque valleys of Lancashire," and, if the unfair conditions under which labour was employed in Indian mills were allowed to continue, the death doom to the manufacture of medium counts of yarn, and cloth made from such counts, in the Lancashire mills. Since then, to quote from Mr. D. E. Wacha's paper on "The Growth of the Bombay Cotton Industry"—

Some of the more enterprising mills, especially the Nagpore Mills, under the management of the shrewd and far-sighted Mr. J. N. Tata, have been spinning 30's and 40's yarn, which have now established a firm hold in certain consuming markets up country. Other newer mills have not been backward in following their example. Wherever fair care and intelligence have been exercised in the selection of the raw material, and equal care and intelligence have been displayed by operatives, it has been found that a very excellent thread can be manufactured which could hold its own against importations of similar description of English. Nay, it has been ascertained by practical experience that with all the latest improvements which the ring throstle is capable of, the production is of a most satisfactory character. With good quality and satisfactory production there is nothing to prevent Indian mills gradually driving away the imports of 30's and 40's yarn, or considerably diminishing their imports. As a matter of fact, speaking of Bombay imports of these descriptions during the last ten years, say from 1882 to 1891, it may be observed that they have been stationary, in face of considerable fluctuations. The grey mule yarn, which is technically known as average 30's (26's to 32's), was imported in the former year to the extent of 627,748lbs., and in the latter equal to 663,005lbs., though in 1883 the quantity had dwindled to 322,860lbs. It was in 1888 only that there was an abnormal importation of 1,278,372lbs., but the next year it fell as low as 481,301lbs. The average of the last quinquennial period compared with that of the first showed a trifling increase of 180,000lbs., or a growth of 18,000lbs. per annum, say 45 bales of 400lbs. each. This would hardly be considered as worth mentioning.

90. With reference to the growth of Indian competition in the manufacture of cloth from medium counts of yarn, he said:—

Coming now to grey piece-goods woven from the same description of twist, it may be said that there is a large leeway yet to be made up. At the best half-a-dozen mills only have hitherto endeavoured to turn out grey shirtings from 30's. The experiments have been tried under circumstances which could hardly be considered favourable. So that save two or three, the rest have for the present abandoned manufacturing cloths of finer yarn. Not that it could not be made, only the margin between cotton and the finished product is not remunerative. The competition of English rates is so great that there is no incentive to continue the experiment. One mill, however, has been most persevering in this respect, and has for the last few years sedulously set upon pushing this quality of its

FOREIGN COMPETITION IN THE EAST.

goods in the Indian market with fair success. Should it persevere, and at the same time produce a larger quantity, we might expect that the day will not be distant when English shirtings may show a considerably smaller import.

91. After remarking that all the Indian cotton, with the exception of Comptah,* is short stapled compared with American and Egyptian, he went on to remark that—

Should India seriously mean to compete with Lancashire in finer classes of goods, it would be interesting to know where she would be able to obtain her supply.† American cotton might be imported, but under one circumstance only, viz., when its production is so large that it could be laid down in Bombay at a price varying from 225 to 250 rupees per candy. The American staple may be cheap enough, but if freight and exchange are not cheap enough to enable the importer to store it in his warehouse at a not higher price than 225 rupees per candy, it would be impossible for India to spin in any larger quantities either 40's, 50's, or 60's—I mean in such quantities as shall enable her to materially curtail the present imports from Lancashire. If she cannot, she may try Egyptian. But the fear is that that cotton too, though the strongest and longest in strength and staple, may prove too dear for remunerative manufactures. Our enterprising capitalist, Sir D. M. Petit, lately imported a fair quantity and tried it in his mills, manufacturing mulls and jacconets. These were placed in the local market, but were unable to compete in prices with the English goods of the same classes. The fact, however, shows that with cheaper Egyptians, goods from 30's and 40's may be spun which could maintain their own with English goods from American cotton. More persistent experiments are needed for this purpose if success is eventually to be achieved. It will be perceived that, practically, the whole question hinges on the possibility of obtaining the raw material of the requisite staple at a price which will enable the Bombay millowner to embark on the new enterprise. If it be not possible to obtain either American or Egyptian at reasonable prices, there is the only other alternative of growing afresh cotton in the country which will give us what we want.

92. The dyeing industry is rapidly developing in India. There are now two dyeing factories in Bombay and others in Ahmedabad, Calcutta, and Baroda, all said to be prosperous concerns. Every fall in the gold value of silver tends to increase the power of Indian manufacturers to gain ground in the struggle for trade against the manufacturer in this country, not only in the textile and other allied industries, but in iron and steel, corn milling, soap making, brewing, and other manufactures.

* Length of staple of Indian cottons—	Oomrawatte, Central Provinces. 1·00in.
Chinginghaut, Central Provinces 1·20in.	Comptah, Central Provinces .. 1·05in.
Pharwar, Bombay Presidency.. 1·00in.	Bengal, Presidency of Bengal .. 1·10in.
Roach, Bombay Presidency .. 0·90in.	Rangoon, British Burmah 0·85in.
Chollerah, Bombay Feudatories 1·10in.	Tinnevely, Presidency of Madras 0·95in.

† The Germans have commenced growing American cotton in their possessions on the East Coast of Africa. If the plantation succeeds, it will prove a new field for the supply of the Bombay mills. Probably Egyptian cotton will also be tried on the East Coast; if successful, this would greatly aid Indian millowners in developing their manufacture of fine counts of cotton yarn.

FOREIGN COMPETITION IN THE EAST.

SWEATING IN INDIAN FACTORIES.

93. Before the Spinning Inquiry of 1888 it was proved that, owing to the long hours worked by the Indian cotton mills, a spindle spinning 20's in a Bombay mill turned out on an average 120lbs. of yarn per annum, against 75lbs. turned out by a spindle spinning the same count in an Oldham mill, the Oldham mill running for 50 weeks of 56 hours, or for 2,800 hours in the year. If spinning at the Oldham rate, the Bombay spindles must have run for 4,480 hours, and the operatives must have worked during the year, outside the time employed in cleaning, for that number of hours. Allowing twenty-one days for holidays, the Indian operatives must have worked on an average during the remaining 344 days for 13hrs. 1min. 4sec. per day to turn out 120lbs. of 20's yarn per spindle. The mills ran from dawn to dusk, with the exception of a few minutes for oiling the engines. As the period dawn to dusk varies in Bombay from 12hrs. 10min. in January to 14hrs. 15min. in June, and averages 13hrs. 12½min. throughout the year, the only daily period for meals and rest allowed to the operatives could not have averaged more than 11min. 26sec. Thus, the manufacturers worked their hands for 14hrs. 3min. 34sec. per day in the hottest time of the year, or, when a holiday did not fall in the week, for 98hrs. 24min. 58sec. per week nearly double the length of time that full-grown men work in English cotton mills, and without even the two hours' interval of rest in their day's work that is allowed to operatives in our textile factories.

94. I endeavoured to end this pernicious system of sweating men, women, young persons, and children by throwing light upon it in the public press, particularly in my article on "Sweating in Indian Factories and Workshops," which appeared in the "Annual" for 1891. Owing to the slight and half-hearted backing received by me from Lancashire members of Parliament, and, with the notable exception of the Blackburn and District Chamber, from Lancashire Chambers of Commerce and Operative Associations, the results of my agitation have been so far but a partial remedy. Had these entered intelligently and earnestly into the battle, as they should have done in their own interest as well as in that of the people of India, no British Secretary of State for India would have dared to sanction the utterly inadequate Factory Act for India sanctioned by Lord Cross. Table No. 22 gives the provisions contained in the Factory and Workshop Acts of this country and in India restricting the age and work-hours of persons engaged in industrial employments.

NOTE.—Out of a population of 288,000,000 in India barely 100,000 persons will be afforded protection by the India Factory Act. The operative, artisan and mining population of India number some 24,000,000 souls.

TABLE No. 22.

SHOWING THE PROVISIONS OF THE BRITISH FACTORY AND WORKSHOPS ACT OF 1878, AS AMENDED BY SUBSEQUENT ACTS,
AND OF THE INDIA FACTORY ACT PASSED IN 1891.

	AGE.		WEEKLY WORK-HOURS.					INTERVAL FOR MEALS AND REST.					LIMITS OF WORKING-DAY.					REST DAYS IN YEAR.				
	Children.	Young Persons (Male).	Young Persons (Female).	HOURS.				HOURS.				A.M. TO P.M.					Children.	Young Persons.	Women.	Men.		
				Children.	Young Persons (Male).	Young Persons (Female).	Women.	Men.	Children.	Young Persons (Male).	Young Persons (Female).	Women.	Men.									
ENGLISH FACTORY AND WORKSHOP ACTS.	YEARS.		DAYS.																			
Textile Factories	(11-13	13-18	13-18	28½	56½	56½	56½	a	½	2	2	2	a	(6-6 7-7	6-6 7-7	6-6 7-7	6-6 7-7	a	84	84	a	
Non-Textile Factories and Workshops	(11-14	14-18	13-18	630	660	660	660	a	½	1½	1½	1½	a	(6-6 7-7	6-6 7-7	6-6 7-7	6-6 7-7	a	84	84	a	
INDIA FACTORY ACT, 1891.																						
Factories not working on a shift system	9-14	c	14-18	42	d	66	66	d	½	1½	1½	1½	½	f	g5-8	g5-8	g5-8	f	52	52	52	
Factories working on a shift system	9-14	c	14-18	42	e	66	66	e	½	1½	1½	1½	..	f	g5-8	g5-8	g5-8	f	52	52	52	

Factories containing less than 50 hands (except in cases where Local
Government admit Factories with not less than 20 hands)
Factories working less than four months in the year
Indigo Factories, and Factories on Tea and Coffee Plantations.....
Workshops
Employés on Railways, Agriculturists, &c.....
Mines and Quarries

EXCLUDED FROM PROTECTION.

For notes to Table No. 22, see following page.

FOREIGN COMPETITION IN THE EAST.

THE NEW INDIA FACTORY ACT.

95. Legally, no medical certificate as to fitness for employment is required for children entering factories in India, nor for children before they become full-timers. The new India Factory Act allows children from nine to fourteen years of age, whether physically fit or unfit, to be employed in Indian mills at any time between the hours of 5 a.m. and 8 p.m. for seven hours a day during six days in the week, and grants no protection other than one rest day in seven and a half-hour's rest at midday to any males over the age of fourteen. This allows men and lads to be worked together with two batches of children for fourteen hours per day, and, if the manufacturers choose to risk the slight chance of being found out by the factory inspector, to lengthen the children's work-hours to seven and a quarter, and thus work men and lads for fourteen and a half

NOTES TO TABLE No. 22.

a In the British Isles, in factories and workshops where the protected classes are employed, men are usually given the same working-hours, intervals for meals and rest and rest-days, as are granted to women and young persons.

b The actual working-hours in British non-textile factories and workshops seldom exceed 54 hours a week for men, women, and young persons; and 27 hours for children.

c Boys over 14 are classed as men, and may work an unlimited number of hours for six days and nights in the week.

d Worked from dawn to dusk with an interval of half an hour at noon, a period of $13\frac{3}{4}$ hours a day in the hot season, or $82\frac{1}{2}$ hours a week if Sunday is a rest-day, and $96\frac{1}{4}$ if a holiday is taken in lieu of Sunday in the previous week. These hours are lengthened in mills using artificial light.

e If artificial light is used they may be worked day and night for days consecutively. That such excessive labour is enforced in cotton-presses and ginning factories was proved before the Bombay Factory Commission of 1884. As an instance I may state that in one cotton-press at Broach, men and women had been employed "for ten or twelve days and nights at a stretch without rest."

f All male cotton operatives, over the age of 14, who were examined in Bombay before the India Factory Commission of 1890, begged the Government would fix the limit of their working-day. The general wish was that the limit should be fixed between 6 a.m. and 6 p.m.

g The evil of loose limits like these are well known. Up to 1891 they were allowed in non-textile factories and workshops in this country, in cases where children and young persons were not employed. With reference to these exceptional cases, Mr. Matthews, the Home Secretary, in his speech on the second reading of his Factories and Workshops Bill, which was especially intended to put a stop to them, said: "Women, as the House is aware, can at present be employed for 15 hours (between 6 a.m. and 9 p.m.), with $4\frac{1}{2}$ hours for meals, and there is no process by which an inspector can detect that a woman is being overworked, as there is nothing to show when she commenced, when she left off, and when she took her meals. The change he brought about in the Bill was to require a specified period of twelve hours to be fixed by the employer, and to give the employed $1\frac{1}{2}$ for meals." Girls and women in India are allowed to work at night on the shift system. All factories wishing to work at night will of course adopt the shift system, and thus the Act affords no protection whatever from night work to women and young persons.

FOREIGN COMPETITION IN THE EAST.

hours in the day. Some of the millowners in Bombay have since the passing of the Factory Act followed the example of millowners elsewhere in India of having their mills lighted by the electric light, so as to take the utmost possible advantage of the provisions of the new Act, and work their mills from 5 a.m. to 8 p.m. throughout the year, and in cases by doing without children to work them day and night.

96. If worked on a shift system, such as prevails in Bengal, the India Factory Act permits females over fourteen years of age to be worked day and night, together with all males over the same age. This system, I have been informed by a high official authority who has studied the factory systems of Europe, renders factory inspection a farce, and any Factory Act which allows its continuance a dead letter. His statement is fully borne out by the following extract from the Foreign Office (Miscellaneous Series) "Report on the Condition of Labour in Switzerland," issued this year. In referring to the Swiss Factory Law of 1887, Mr. C. S. Scott, H.M. Minister at Berne, says:—

In the earlier years of its operation the limit of eleven hours was the provision which was found most difficult to enforce strictly and generally, and the Federal Council had to deal by positive decisions with the several ingenious methods for evading its observance. For instance, the plan of distributing the dinner hour among the workmen in shifts, so as to enable an employer to keep the factory at work for twelve hours without exceeding the legal limit in any individual workman's case, was decided to be illegal, as it rendered any effective control of the observance of the limit impossible.

97. The Act as it now stands is simply iniquitous. Children in the United Kingdom are not allowed to commence work unless they can produce a medical certificate of fitness. No child is allowed to be employed before the age of eleven, and up to fourteen years of age they are restricted to working twenty-eight and a quarter hours a week, and for no longer than four and a half hours at a spell, while in Indian mills little children of nine years of age are permitted to work for seven hours a day, and for forty-two hours a week, and no child who is not employed at least six hours at a spell in a factory is allowed any interval or intervals for rest. The expression "interval or intervals of rest amounting in the aggregate to at least half an hour" seems to have been placed in the Act to enable the manufacturer to count intervals for necessary purposes as intervals for rest and meals, and thus cheat the poor little overworked children out of the modicum of rest that is granted them. Another iniquity perpetrated by the Act is the allowing children to be worked on the same day both in morning and afternoon sets. A child who comes at 5 a.m. may be worked till 8-30 a.m., then relieved by a child working from 8-30 a.m. with the midday rest of half an hour to 4-15 p.m., and the first child again worked from 4-15 p.m. to 8 p.m.

FOREIGN COMPETITION IN THE EAST.

Each child would have thus worked for seven and a quarter hours, or for a quarter of an hour longer than is sanctioned by the Act, and had his interval of rest of at least half an hour, but the first child would have been barbarously treated, as his or her home would probably lie two or three miles from the mill, and it would either have to walk eight or twelve miles a day in going and returning twice to the mill or lurk about in the neighbourhood while the other child was completing its task.

98. The refusal of the Government of India to grant protection to all lads over fourteen years of age outside fifty-two rest days in the year and one interval of half an hour in their long day's work, thus allowing them to be worked day and night for as many hours as their inhuman taskmasters may desire, can only be accounted for by the pressure put upon the Government by Europeans profiting by the backward condition of factory legislation in India, who benefit in pocket by the grinding oppression of the overworked, usurer-ridden working classes of India, and care less for the health and welfare of the natives, who can be replaced without any extra expense as they are used up, than Legree and his tribe did for their slaves in the bad old times in America. Hirelings under such circumstances are far worse treated than slaves.

CONCLUSION.

99. To anyone who intelligently studies the growth of Indian and foreign competition in textile and other trades, as set forth in this article, the movement of our cotton operatives for the reduction of their work-hours to eight a day, or forty-eight a week, betokens either their ignorance of the true position of affairs or a wanton blindness to consequences which must follow such action as certainly as night follows day. The only attempt at an argument in defence of such suicidal action is grounded on the idea that over-production in the cotton industry is caused mainly by our own manufacturers, who, it is said, are overflowing their markets with goods, and are cutting their own and each other's throats by underselling their rivals in order to get rid of their goods.

100. If such over-production, such supply in excess of demand, originated solely in this country, and Indian, American, and other foreign competitors were not in the field, the reduction of the hours of our operatives to eight a day would be a reasonable remedy to apply to its curtailment. Such curtailment would, however, necessarily entail either a fall in the wages of our operatives or an increase in the price of the manufactured goods. Our manufacturers are already suffering from diminished profits, and, in many cases, from having to sell at an actual loss. If their standing charges are

FOREIGN COMPETITION IN THE EAST.

increased they will inevitably be forced either to raise their prices or to close their establishments. To raise our prices would be destructive to our trade; it would be handing it over to our rivals against whom we are now barely able, and in some cases unable, to hold our own. This is as well understood by the leaders of the operatives as it is by the manufacturers. Before the Royal Commission of Labour, Mr. Mawdsley, speaking as a representative of the operatives, declared:—

We believe that we cannot reduce the present hours without materially injuring the trade, and we are satisfied that, if there is to be any injury to the trade, it will in the future have to effect our pockets and not those of our employers.

101. With increasing population a corresponding development of national industry is a necessity. We must either increase our export of wares or men. Capitalists will not run their works for long or embark their capital in new ventures without a hope of reasonable profit. If capital flies the country for more remunerative investment elsewhere, those thrown out of employment must seek work in other lands, or starve, or enter the workhouse. Firm after firm of manufacturers are deserting this country with their capital and plant, and setting up business in markets now closed to our exports by hostile tariffs, or where the cheap labour and long work-hours will enable them to compete not only in their new homes but in other markets, including our own, where they can swamp the sale of our goods with their surplus produce. With foreign competition encroaching on our trade abroad and in this country, and every day becoming more formidable, this is no time for antagonism between capital and labour. To meet such competition manufacturer and operative should battle shoulder to shoulder and strive their utmost for mutual success. Farsightedness, clear-sightedness, good business capacity, energy and pluck on the part of merchant and manufacturer, joined with capability, good sense, and honest endeavour to do his best on the part of the workman, have kept us ahead of foreign nations in the past. The same sterling qualities will, I hope, see us through the fight now raging around us and leave us victorious. Circumstances, however, have favoured our opponents, and to ensure the victory it will be well for us to do all we can to diminish their advantages.

102. Every fluctuation in the gold value of silver gives our Eastern competitors additional advantages over us. With the facilities for information afforded to native dealers by the telegraph, the silver price of goods readily falls with a rise in the gold value of silver. The contrary process, when the gold value of silver falls, is a matter of trouble and difficulty, and an impossible process in an overstocked market. Fluctuations make all trading a gamble, and are

FOREIGN COMPETITION IN THE EAST.

even worse for the merchant and manufacturer than a steady, even if low, rate of exchange. The prosperity of Lancashire is so bound up in its Eastern trade that it should strive its uttermost and never rest satisfied until this exchange difficulty is settled entirely by bimetallism, or partially by instituting a gold currency for India, or by any other course that may be considered more expedient for bringing about the permanent steadying of monetary exchange between this country and the East. Uncertainty in the matter of exchange renders all business with the East a Stock Exchange transaction, and tends to the ultimate ruin of merchant and manufacturer. If these tumble down, the operatives must topple over with them.

103. With silver raised to, or near to, its former position in relation to gold, the ever-recurring financial difficulties of the Government of India would cease; the Indian Government, deprived of its excuse for further delay, would have to rapidly push on its construction of railways; English capitalists would vie with each other in seeking investments in such profitable works; and the people of India, enriched by new markets being brought within easy reach by the cheapened mode of carriage, would take our goods in ever-increasing quantities. The best way of finding means of subsistence for our growing population, the best cure for over-production—a cure which would neither cause lockouts nor strikes but would be relished by everyone concerned—is the opening up and development of vast markets like India and China, containing hundreds of millions of possible customers. The only way to open up and develop such markets is by insisting that our treaty rights in China shall be respected, and by cheapening the means of communication and facilitating the course of trade by the construction of railways.

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

BY HENRY DUNCKLEY, M.A., LL.D.

THE object of this paper is sufficiently described by its title. It is to give some account of the armies and navies of the world in relation to their magnitude and cost. How many soldiers are there, how many sailors, and how much money is spent every year in maintaining them? The reply to these questions must be given chiefly in figures, but the figures will be better understood if we offer a few observations beforehand on the changes which military systems have undergone. Great Britain, inasmuch as it is pre-eminently a naval power, is not a fair sample of Europe from a military point of view, but in English history we are on familiar ground, and it will serve us well for purposes of comparison. Standing armies are not what they once were. They differ not only in numbers but in composition. There are soldiers, if we may so phrase it, of different degrees. There are some who are always with the army, and there are others who, though they are not always with the army, are a constituent part of it, and are liable to be called out on emergencies. In the greater part of Europe some analogy may be seen between politics and armaments. In both there has been of late something like a recurrence to first principles, universal suffrage going hand in hand with universal obligation to military service. In this way it happens that "the resources of civilisation" at its latest stage correspond to those of an earlier time when our forefathers were indeed free and warlike, but not quite so intelligent and refined as their descendants.

THE ANGLO-SAXON FYRD.

GOING back to the beginning, we find that among the Anglo-Saxons, or early English, from the period of their first settlement in this country the obligation to military service was universal. This arose in the first instance from the force of circumstances. The Anglo-Saxons came over here as invaders. They had to fight and conquer the native tribes before they could call any part of the land their own. When they had cleared out a district like that of Kent, which was the scene of the first invasion, and had settled down in their homesteads, they had to hold themselves in readiness to defend what they had won. Thus every man was potentially a soldier, not in our

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

modern sense of the word, but in the sense that he could fight and was ready to fight when called upon, and that which necessity at first imposed soon came to be regarded as an obligation. When the various Anglo-Saxon kingdoms were united in a single monarchy under Egbert and his successors, every free man was held to belong to the *fyrð*, or national militia. By that time the obligation had come to be practically connected with the tenure of land, but that was because the free man was usually a landowner. It was his possession of land that gave him his position in the state, conferred responsibilities, and made him to some extent a sharer in the government. He was thus marked out for all the duties of citizenship, and the bearing of arms was one of them. One of the duties of the sheriff was to keep a register of those who in the various hundreds of the county were bound to render service, to see that they were duly equipped, and to put the requisite contingent in the field on receiving orders to that effect from the king. The theyns and other great landowners, besides being bound to personal service, had to equip a certain number of men. They would probably employ for this purpose the labourers on their estates, who not holding the rank of free men would not otherwise have been liable. A remarkable advance in military organisation is ascribed to King Alfred. It is recorded in the Anglo-Saxon Chronicle that in preparing to renew his struggle with the Danes he divided his army into two parts. One of them he kept with him in the field, the other he sent to their homes to till their farms and defend the places in their neighbourhood. He thus established a reserve force, therein anticipating an invention of modern times; but as we do not hear any more of the experiment, it probably did not survive the occasion which led to its being made.

THE FEUDAL ARMIES.

THE growth of the feudal system brought with it a great change in the military system of the country. It set in long before the Norman Conquest, and though its largest expansion took place under the reign of the Conqueror, the system received from him some checks and counterpoises which hastened its decay. One of the chief influences at work in the establishment of feudalism both here and on the Continent was the disposition shown by the smaller freeholders to place themselves and their property under the protection of men more powerful than themselves. The impelling motive was furnished by the violence of the times, and the consequent risks which small men ran of being crushed by some rapacious neighbour. The movement was to a great extent voluntary, and the expedient would not have been resorted to if it had not been found to be beneficial. The immediate effect, perhaps, was not considerable, but it ended in

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

the free men becoming the vassals of the great lords, who took property as well as persons into their keeping, and probably paid special regard to the property. The result from a military point of view was that the lords became answerable for their vassals to the king, and by the power they had over them often used them for their own purposes. On the Continent they were able to lead armies to the field, to wage war against their own sovereigns, and to establish themselves as semi-independent potentates. The final result was seen on a large scale in France, where province after province was torn from the central power, to be recovered when the kings grew stronger at the price of civil war and a great expenditure of blood. William the Conqueror knew by experience the perils to which unchecked feudalism exposed the paramount power, and was resolved to take precautions against them. Hence he was not content with receiving the homage of the great feudatories and tenants-in-chief, but required all the lesser barons and knights who held under them to take the oath of allegiance. The great barons, in receiving lands from the king, took them as a matter of right. They had fought with him at Hastings, not for love, but for the rewards which had been promised them, and having helped him to a kingdom they expected to be repaid. That they should render military service to the king followed as a matter of course from the fact of their being his subjects, and the amount of aid they were to render was fixed in proportion to the value of their estates. So much land was rated at so many knights' fees, and the men had to be forthcoming when the king required their services. This, as we have seen in the case of the Anglo-Saxon theyns, was substantially the same system as had existed before the Conquest, but carried out more vigorously and on a larger scale. In course of time the feudal obligation was often commuted for a money payment. With a well-stocked treasury the king could take men into his own pay, and to that extent render himself independent of the feudal levies.

THE ASSIZE OF ARMS.

THE military arrangements of the feudal system are to be regarded as an addition to those which were in force by ancient custom. The personal obligation of every freeman to bear arms in the defence of the country was not lost sight of, and a hundred years after the Conquest, when English usages were beginning to revive, it was brought to the front. In 1181 an Assize of arms was ordered by Henry II. The intention was, says Dr. Stubbs, to reform and re-arm the national force of the fyrd as it existed in Anglo-Saxon times. The order went forth that the whole of the free population should provide themselves with arms. The owner of a knight's fee was required to possess a helmet, a coat of mail, a shield, and a lance; the freeman

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

owning to the value of fifteen marks in rent or chattels had to do the same; the owner of ten marks had to have a hauberk, a headpiece of iron, and a lance; and all burghers and freemen a wambais, or thick garment stuffed with wool, a headpiece, and lance. It will be observed that the assessment on which the possession of arms was rated included chattels as well as land, and extended to those who lived in towns. The great barons were answerable directly to the king, but the lesser barons, the knights, and the whole body of freeholders, including the burgesses, were placed under the orders of the sheriffs of the different counties, whose duty it was to see that the king's writ was complied with and that they were ready for action when called upon. The Assize of arms was held under the sheriff's inspection in the court of the hundred, or in the county court. When the whole number of men available for service was ascertained, the king's writ determined from time to time how large a contingent was required. The distinction between the feudal and the common law levies seems to have almost disappeared in the time of Edward I. He ordered the sheriffs to give notice to all who owned a certain amount of land, whether they held in chief from the Crown or not, and "whether within or without franchises," to prepare at once to follow the king whenever he should require their services. It is worthy of remark that this endeavour to form a national army on the sole basis of duty to the State was made by the sovereign who summoned the first Parliament in which the whole nation was represented.

THE MILITIA.

THE national force, known anciently as the fyrd, is historically the same as the militia of to-day. It has undergone many changes, but the measures adopted with a view to its reform and consolidation by Henry II. were more or less permanent. They furnished a model for the military policy of later times. The right formerly assumed by the sovereign to order the militia anywhere underwent some limitation. It was recognised as, nominally at least, a local force belonging to each county, and the militia of the county could not be required to serve beyond its bounds except in times of public danger. On extraordinary occasions persons selected by the king were sent into the country under the name of Commissions of Array to raise the number of men that were required. These Commissions to some extent displaced the sheriffs, and in the reign of Philip and Mary the change was completed by the appointment of Lord-Lieutenants of counties, to whom the command of the militia was transferred. James I. reorganised the force, fixed the number of men at 160,000 for the whole country, and directed that they should be trained for a certain period every year. Hence they were called

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

"trained bands," or in common speech "train bands." The system was broken up by the Civil War. The Lord-Lieutenants could not all be trusted, and the train bands were generally disposed to declare for the Parliament. It was a momentous question for both parties which of them should have the command of the territorial forces of the nation, and the king's persistence in the assertion of his right was a principal cause of the final breach. The Parliament kept the train bands and the king sent out Commissions of Array to enlist all whom they could prevail upon to join his armies. But the war was not decided by these indiscriminate levies. The reorganised army of the Parliament under Cromwell consisted of picked men who enlisted voluntarily out of devotion to the cause. These were the troops that triumphed at Marston Moor, Naseby, and Worcester. They became to all intents and purposes a standing army—the first that had been known in England. The Commonwealth rested on their support, and Cromwell's Lieutenant-Generals were entrusted with the administration of the country. At the Restoration the army was disbanded, but not till it had provided the nucleus of another standing army which has lasted from then till now. It is said that on reviewing the army previous to its disbandment, the king begged to be permitted to keep one or two of its finest regiments as his body-guard, and his wish was gratified. Others were afterwards added, till at the Revolution, when a king with great military projects came to the throne, Parliament may be said to have ratified the scheme, at the same time providing that the army could only exist with its consent, renewed from year to year.

THE ARMY AND THE MILITIA.

ALMOST the same thing may be said of the standing army, which dates from Charles II., as has been said of the feudal levies. It did not supersede the militia. This still remained the constitutional force of the nation. The question who should have command of the militia, out of which in part the Civil War arose, was settled at the Restoration in favour of the king. The force was re-established and reorganised, but not on too democratic a footing. People of property were required to equip a militiaman, and those of less means had to contribute towards the same object. In other words, the common people were excused on paying a tax. But the system was clumsy and expensive; it did not work well, and gradually fell into decay throughout the country, except in London. The standing army was for a time everything, and the nation was proud of its achievements. At length, in 1756, attention was again drawn to the militia. We were then at war with France, there were apprehensions of an invasion, and Hessian troops were brought over to help in defending the country. Public feeling revolted against the employment of

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

foreign mercenaries for such a purpose, and Parliament passed a Militia Bill which has often been amended but is still substantially in force. Under this and subsequent Acts the Crown is empowered to employ the militia in any part of the United Kingdom, but not out of it. It is called out for training for a period of not more than fifty-six days in the course of the year, as the authorities may determine. All persons not suffering from bodily infirmity, and not specially exempted, are liable to be drawn by ballot for the militia, and to serve either personally or by substitute. The exceptions are numerous. Generally speaking, they include all who are already serving the State in some other capacity. They include also poor men with more than one child born in wedlock, and men of more than forty-two years of age. Formerly a poor man had to have more than three children in order to be exempt from serving when drawn, and to assist him in buying a substitute, if he so desired, the churchwardens of the parish were bound to pay him a sum not exceeding five pounds, which was about one-half of the current price. Mutual assurance clubs were formed for the same purpose. At the present time the public have no recollection of these arrangements, and there is nothing to remind us that they are virtually in existence. The militia is recruited by voluntary enlistment like the regular army. But the Militia Act, so far as regards the ballot, is only suspended from year to year, and by simply omitting to pass the annual Suspension Act it might come into operation if the voluntary enlistment proved insufficient. In 1871 the command of the militia was transferred from the Lord-Lieutenants of counties to the Secretary of State for War, and since the adoption of the territorial principle of military organisation it has been brought into organic connection with the regular army. There is also a militia reserve, consisting of men who by taking a double bounty of two pounds come under an obligation to serve in the regular army if required.

YEOMANRY AND VOLUNTEERS.

THERE are two other military bodies which must be mentioned for the sake of completeness, but we are familiar with them, and a word or two will suffice. The yeomanry cavalry came into existence during the long war which followed the French Revolution. The military enthusiasm of the period led to the formation of a corps in almost every county. They were composed chiefly of country gentlemen and wealthy farmers, who equipped themselves at their own cost but received pay when on actual service, together with some allowance for regimental expenses. At first they were included among the ordinary volunteers of the period, but by an Act passed in 1802 they were recognised as cavalry corps, and as no limitation was fixed with respect to time they were not disbanded when the war was over.

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

They have continued to exist, largely on sufferance, ever since, and, though no high opinion is entertained of their military qualities, it has not been thought desirable to put an end to an organisation which costs little, which may be useful, and is probably capable of improvement. England swarmed with volunteers when it was supposed that Bonaparte meditated a descent upon our shores, but the danger was soon over and there was no volunteering for the next half-century. The volunteer movement of to-day began in 1861, when a conspiracy, supposed to have been formed by foreign refugees in this country, against the life of the Emperor Napoleon produced great irritation in the French army, and led to threats of invasion. Then to the cry of "Defence, not defiance," thousands of the young men of England flew to arms. Year after year their numbers went on increasing, and the force has now the characteristics of permanency. The volunteers have now, along with the militia, a place assigned them in the territorial organisation of the regular army.

FRANCE.—ORIGIN OF STANDING ARMIES.

THANKS mainly to our insular position, there was no standing army in England till the nation and Parliament were strong enough to keep it under effectual control. As an army was chiefly wanted for purposes of defence, and as the sea kept invaders at a distance, the militia levies were sufficient for the protection of the realm on the few occasions when our shores were seriously threatened. Our nearest neighbours were willing enough to let us alone if we would let them alone, and after the close of the hundred years' war with France (1453) we ceased to dream of foreign conquests. Moreover, Parliament always managed to keep possession of the national purse, and our sovereigns were too poor to keep a standing army in pay. Things took a different turn on the Continent. At the outset the military institutions of the principal nations were substantially the same as ours. These nations were of the same Teutonic stock. They made their first appearance as conquerors of the lands which their descendants were to inhabit. Hence every man was a warrior, and when they settled down in their new acquisitions the obligation to take up arms when called upon was universally recognised. Dr. Stubbs has pointed out the analogy between the Assize of arms established by Henry II. in England and the system established by Charlemagne three centuries earlier. This older principle was destroyed on the Continent, and especially in France, by the influence of feudalism, while, thanks to the precautions taken by William the Conqueror and his successors, it survived in England. In France the great feudatories of the Crown became all but independent princes. They made war upon one another, and upon their sovereign, whose resources were insufficient to enable him to cope

with them. It became the settled policy of the French kings to break down their power, and the most effectual way of doing this was to have a disciplined force at their disposal on all occasions. This was the origin of standing armies, and England supplied an excuse for the invention. On the final expulsion of the English at the close of the hundred years' war, Charles VII. took advantage of the enthusiasm of his subjects to keep under arms a body of nine thousand cavalry and sixteen thousand infantry. He did so on the plea that it was necessary to be prepared to resist a fresh invasion, and his people acquiesced. These troops were stationed in different parts of the kingdom, paid regularly, and kept in constant training. They soon proved more than a match for the feudal levies. His successor, Louis XI., pursued the same policy on a more extensive scale, taking Swiss and other mercenaries into his pay, till he succeeded in reannexing to the Crown the provinces of which it had been deprived, and became formidable to his neighbours. By the possession of a standing army at a time when the institution was unknown in other countries France attained to a great height of military renown. Italy was invaded, Flanders, Germany, and Spain were threatened. In these circumstances it was necessary for all who were exposed to the hostility of France, or who dreaded its rivalry, to fight it with the same weapons, and standing armies soon began to spring up all over Europe.

One direct result of the establishment of standing armies was the aggrandisement of royalty. The kings, whose power had till then been extremely limited, soon made themselves supreme. The process, which had its counterpart in the principal countries of the Continent, was worked out with most precision in France, where the example was set. The States-General, which represented the Free Assembly of the old Frankish monarchy, the same in character as our Anglo-Saxon Witenagemote, ceased to meet, or met only at distant intervals, and the kings issued ordinances in their own name which had the force of law. The right of taxation was gradually assumed in the same way. The royal treasury was kept full by imposts levied upon the people, whose consent was never asked, and who were unable to offer any effectual resistance. With the power of the purse in their hands, and able to draw to any extent they pleased upon the property of their subjects, the chief obstacle in the way of arbitrary rule was got rid of. They were free to augment their armies, to plan costly enterprises, and to seek to extend their territories at the expense of their neighbours. This was the policy pursued uninterruptedly by the kings of France from the days of Louis XI. to those of Louis XIV., in whom it culminated both in a political and a military sense. He put an end to the only remaining check upon the royal power in the court of great lawyers known as

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

the Parliament of Paris, and formally declared that the State was comprised in his own person, while, by the pecuniary burdens which the great wars he waged for a period of forty years compelled him to lay upon the people, he reduced them to the last degree of impoverishment, and prepared the way for the Revolution. In Spain and Germany, and in the small states into which Italy was divided, events took substantially the same course. Standing armies and absolutism went hand in hand. The bulk of the people were unarmed. They were deprived of their liberties, they had nothing to defend, they were for the most part in a condition of vassalage and of extreme poverty. If the rule which originally prevailed in all these countries had been maintained, if every freeholder had been required to provide himself with arms, and public defence had been entrusted to a national militia, they could never have sunk so low, and kings could not have become so absolutely despotic. But the old order of things had passed away. There were no longer any freeholders. The bright spots in Europe were the free cities of Germany where the traditions of self-government were maintained, the commercial communities of the Netherlands, and, above all, the cantons of Switzerland, where the hardy mountaineers had succeeded in vindicating their independence, and liberty had found an abiding home. Unhappily there is one blot upon their fair fame. They had no standing army in their own country, but they formed an important part of the standing armies of other countries. The reputation they had won in defending their native valleys against Austrians and Burgundians, and the new methods of warfare they had introduced, commended them to the notice of neighbouring monarchs, who were willing to pay handsomely for their services. The practice lasted for centuries. The sculptured "Lion of Lucerne" commemorates the Swiss Guard of Louis XVI., who were slain to the last man in defending the Tuileries against the revolutionary mob of Paris.

THE CONSCRIPTION.

A SWEEPING change in the military system of the Continent set in with the French Revolution. The event sounded like a thunder-clap throughout Europe, and the monarchs, alarmed for their own safety, marched their forces to the French frontier. At the threat of invasion it may almost be said that the whole of the male population flew to arms. They were formed into ragged regiments, most of them were wanting in discipline and but imperfectly equipped, but enthusiasm taught them how to fight, and they drove the invaders back. At Valmy and Fleurus they measured themselves with the best troops of Prussia and came off victorious. The first military efforts of the Revolutionary Government were a trial of strength between improvised popular armies and the standing armies

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

of the military powers. The new order of things was confronted with the old, and it was the new that prevailed. As the contest extended more men were wanted to fit out larger armies and replenish the annual waste of war. The enthusiasm of the nation had begun to subside and the number of volunteers was no longer sufficient to meet the extraordinary demands that were made upon the military resources of the country. In the old despotic days there would have been no difficulty. The helpless peasantry would have been pressed into the service without ceremony by the orders of the king. Under a Republic, when freedom had been proclaimed, arbitrary methods could not be resorted to, while the necessity for keeping up the armies employed in Italy, on the Rhine, and even in Egypt, was overwhelming. In these circumstances in 1798 France adopted the Conscription. It was declared that every Frenchman not physically incapable should henceforth be liable to serve in the army on reaching the age of eighteen. An annual contingent was fixed upon, and out of the whole of the male population who reached the prescribed age each year the number of men required were drawn by ballot. Certain exceptions were of course permitted, some consideration had to be paid to the necessities of aged parents and of orphaned families whose sole support could not be taken away. Those exempted on such grounds were not included in the ballot, but all who were drawn had either to serve in person or find a substitute. The principle of conscription was not in itself a new thing. Its adoption by the French Republic was a return to the oldest type of military organisation, one which, as we have seen, had never quite died out in England, and had been renewed by our Militia Bills. But with us it had been limited to home defence, and had saved us down to a late period of our history from the cost and peril of standing armies, whereas it was revived in France in order to furnish materials for wars beyond the frontier. The men who were recruited by conscription every year were sent to perish on distant battlefields, and the drain was so great that before Napoleon had finished his career of devastation the country was to a serious extent depopulated. Nevertheless it is a suggestive fact that the dawn of democracy in France was followed before long by the establishment of a democratic army.

THE PRUSSIAN SYSTEM.

For a further development of army organisation we have to look to Prussia. France and Prussia between them are chiefly responsible for the enormous dimensions which modern armaments have assumed, and we owe to Prussia especially the discovery of the principle by which the army may be made to embrace potentially the whole nation. If we except Italy, which was born but yesterday, Prussia is the youngest of the Great Powers, and it has been a military State from

the beginning. Its kings have always made it their prime concern to keep on foot the largest army which by dint of economy they could manage to maintain, and to make it the most efficient fighting force in Europe in proportion to its numbers. Carlyle, in his "Life of Frederick the Great," has told us almost more than the Prussians themselves know of their national hero. He stepped into possession of a well-equipped and well-disciplined army which his predecessors had created, and the use he made of it in the conquest of Silesia, and in defending that conquest through the calamitous struggles of the Seven Years' War, forms one of the great chapters of history. The military system of Prussia in his time was founded theoretically upon the liability of all his subjects to serve in the army, but the exceptions were numerous enough to exempt the richer classes, and even the people of the towns. It was the peasant who had to do the work of war, and on whom the whole burden of conscription rested. Regiments recruited by force from among the peasantry and commanded by officers of noble rank—such was the Prussian army. The military genius of Frederick raised it to the highest reputation. Disposing of the resources of one of the smallest states of Europe—the very smallest of those pretending to rank as kingdoms—he was able to hold his own against a combination which included Russia, Austria, and France, and to come off victorious. At the commencement of the French Revolution Prussia aspired to keep the movement in check, but soon found good reason to desist. Nevertheless, when Napoleon in the course of his conquests had to confront a coalition of Austria and Russia, Prussia believed herself competent to play the part of an armed mediator in the hope of securing the largest prize for herself, and the general belief in the prowess of her army was so strong that she was thought not unlikely to succeed. But the army was no longer formidable except in name. It was pervaded by a dry rot. Discipline had become routine. The officers were strong in the conceits bred by the achievements of a past generation. The rank and file consisted of serfs who had been dragged from the plough-share to be cuffed and flogged into soldiers. They had no patriotism, because they had nothing to fight for. When the conflict was at last dared the one battle of Jena sufficed to annihilate the Prussian army and lay the Prussian monarchy in ruins. It seemed as if the entire State crumbled and fell at a single blow.

This terrible catastrophe, which brought upon Prussia the loss of one-half of her territories and reduced her to the rank of a third-rate Power, was rendered possible by the internal disorganisation of the country and the vices of its Government. Happily there were a few great men in the service of the State who saw clearly the evils that needed to be corrected, and who had the courage to project, and were permitted to carry out, a more searching and more

comprehensive system of reform than had ever been accomplished within the same space of time in any country. Upon these we need not dwell. Those who wish to make themselves acquainted with the details of that wonderful revolution in the field of government will find them narrated in Mr. Seely's "Life of the Baron vom Stein." We have only to do with that part of it which relates to the army, the reconstruction of which was necessarily one of the first tasks to be undertaken. Napoleon had made it one of the conditions of peace that the army, till then a hundred and fifty thousand strong, should for the next ten years not exceed forty-two thousand men. Reduced to such dimensions it would be unequal to the work of restoring the independence of the nation, and nothing would remain but absolute submission for an indefinite period to the will of the conqueror. But the difficulty lay deeper. Even if there had been no restriction upon the size of the army, the nation, after one-half had been torn away, was too small and too poor to support a larger one. A Commission was appointed to consider the question, whose discussions brought one or two fruitful ideas to light. Experience told them that to become a soldier a man must give up civil life and actually serve in the army. But they also agreed that it only took three years of continuous service to make a soldier, that after having spent that length of time in the army he did not go on improving, and that a little practice occasionally would be quite enough to keep up his efficiency. Here, then, was the problem solved. Looking at the question immediately in hand, it would be possible to abide by the terms dictated by Napoleon and yet defeat his object. Take forty-two thousand men for three years; at the end of that period dismiss them to their homes and take another forty-two thousand in their place, and so on with a third period—in this way by the expiration of the ten years fixed by Napoleon instead of an army of forty-two thousand men they would have at their command an army of a hundred and thirty thousand. The idea was evidently capable of expansion. Was it right to take a part of the population and spare the rest? Was it not the duty of every citizen to fit himself for taking his share in the defence of the State? If all alike were required to serve three years in the army, passing them into the reserve and next into the Landwehr, a force would be constituted which would comprise the fighting strength of the entire nation, and render it invincible for purposes of defence. The plan was not carried out all at once, but it was never abandoned, and it is now in full operation. For a time it was acted on at once. In 1813, the year after Napoleon's calamitous Russian campaign, the King of Prussia summoned the nation to arms, and was able at the same time to place a numerous regular army in the field. It was a year of abounding heroism. After a series of bloody battles Napoleon was

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

driven across the Rhine, forced to abdicate and retire to Elba, to return to France in the spring of 1815, and be finally vanquished at Waterloo.

INTERNATIONAL POLITICS AND ARMY EXTENSION.

ARMY organisation has been powerfully influenced by the political movements on the Continent within the last thirty years. The first, and one of the most important, is the rise of Italy to the rank of a Great Power. Previous to 1860 there was no Italy in the political sense of the word. It was, as Prince Metternich has described it, "a geographical expression." At the southern end there was the kingdom of the Two Sicilies, and midway across the peninsula there were the States of the Church. At its broadest part beneath the Alps Austria held the provinces of Venetia and Lombardy, while the adjacent province at the north-west corner, with Genoa for its seaport, formed the principal part of the little kingdom of Sardinia. The kingdom of Sardinia, with the exception of Nice and Savoy, which were ceded to France as the price of military assistance, is now merged in the kingdom of Italy. The Two Sicilies, the States of the Church, Austrian domination in the north, with two small dependent duchies in the west, have all disappeared, and the Sardinian, or rather the Savoy, dynasty rules over the whole land. Though the late Emperor Napoleon was the chief instrument in bringing about this great change, he never intended that it should go so far. That it ended in the complete unification of Italy is due to the enterprise of Garibaldi, and in some important measure to the steady support of the British Government. In France the movement was unpopular. Statesmen loudly complained that the policy of the Emperor had led to the establishment of a first-rate Power on their southern frontier instead of a congeries of petty States with whom for centuries they had been in the habit of intermeddling. Italy believes that she has to take precautions on the side of France. To make herself still more secure she has entered into an alliance with Germany and Austria, the main object of this alliance being to hold France in check, and especially to prevent France from attempting the reconquest of Alsace and Lorraine. Italy thus feels herself compelled by the circumstances in which she attained to the rank of a Great Power, and by the jealousies which that movement inspired, to keep a large army on foot and to lay the foundation of a powerful navy. The conscription has been adopted after the pattern set by Prussia and France, and the military budget weighs with almost intolerable pressure upon the population. The wisdom of the policy pursued by the Italian Government is much disputed, but it is held to be necessary and receives the general support of all parties.

The next great movement had for its object the putting an end to the rivalry of Prussia and Austria for the leadership of Germany. The late Mr. Freeman could hardly bear to hear anyone speak of the Austrian Empire. He said there was no such empire. The facts are simple enough. There are two duchies on the Upper Danube—Upper and Lower Austria—which have been in the possession of the Hapsburg family for six centuries. The proper title of the head of the family was therefore that of Archduke of Austria. Other districts were gathered round this nucleus from time to time, but the title by which the ruler was known remained unchanged. The archdukes acquired by marriage the kingdoms of Bohemia and Hungary, and were kings in those territories, but a higher honour, though conferred by formal election, became almost hereditary in the family. The reigning member of the House of Hapsburg was almost always chosen Emperor of Germany. So things remained till 1806, when Napoleon, having shattered Germany to pieces, proceeded to found kingdoms out of the petty States and set up a Confederation of the Rhine in which many of them were included. In these circumstances Francis I., who then was Emperor of Germany, renounced his title, released the German princes from their allegiance, and assumed the imperial dignity in connection with his own dominions, taking his title from those territories that had been longest in the family, the Austrian Duchies. If he had renounced at the same time all control over Germany and all right of interference in German affairs much trouble would have been avoided. By the treaty of Vienna it was agreed that Germany should be governed by a Diet of all the States, and that Austria and Prussia should preside in turn. This arrangement was the beginning of sorrows. Germany had no longer a name among the nations and no chief with a national designation, while one of the Powers entitled to preside at the Diet was more Hungarian and Bohemian than German. Prussia on the other hand had become more than it was originally a distinctly German Power, and on the score of its achievements and its military strength might claim to be the leader and head of the German people. Where there are rivals there will be parties. Some of the German States favoured Prussia, others Austria, and the country was torn and distracted by their dissensions. But the great preponderance of popular feeling lay with Prussia. National sentiment was in the air. The unification of Italy had been all but completed; why should there not be some approach to a unification of Germany?

This was the aim of Prince Bismarck—the gathering of the German States under the leadership of Prussia, and the ousting of Austria from all interference in German affairs. He had pursued this aim for years, but his chance came in 1861 when William I. succeeded. His first step was to propose a great increase of the army. The

 THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

Prussian Parliament refused its assent and did so year after year. But the king and his minister, between whom there was a perfect understanding, took their own course and carried out the changes they deemed necessary, the enlargement and better equipment of the army—notably with the needle gun—being the chief. When everything was ready a quarrel was picked with Austria, a thing easily done when their relations with each other for thirty or forty years had been little better than a standing quarrel, war was declared, three armies poured into Bohemia, the great battle of Sadowa was fought, and in six weeks Austria was forced to accept peace on the terms which Prussia dictated. Austria retired from Germany, all the German States to the north of the river Main were either annexed to Prussia or bound to recognise its supremacy, while those to the south of the Main agreed to treaties by which in the event of war all their forces should be placed under the command of the King of Prussia. Four years later this event happened, the interval having been spent in preparation. The Emperor Napoleon had duped himself into neutrality during the short Bohemian campaign with the hope that he would find an opportunity of interfering between the belligerents. He was confounded by the suddenness with which victory had declared for Prussia, but he was still under the belief that he would be allowed to take the territories between the French frontier and the Rhine by way of compensation. When this was refused war between France and Prussia was only a question of occasion and time. Both came in 1870. The Emperor soon found that he had to deal with all Germany and that the Germans were ready. When the signal was given the nation seemed to be one vast swarm of armed men. They poured into France with overwhelming force. At the end of a month there came the catastrophe of Sedan, and in six months more France had to purchase peace at the cost of two provinces and a war indemnity of two hundred millions.

THE SITUATION TO-DAY.

THE facts that we have narrated lie at the basis of the European situation of to-day, and explain the sudden ripening of those military ideas of which we have traced the growth. Wars are now declared and finished with unexampled rapidity. Railroads and telegraphs are at the command of the strategist, and a country may be conquered in the time which it took to capture a single fortress in the days of Marlborough. For this reason, after the experience of the last thirty years, the Continental Powers feel themselves obliged to be in a state of constant preparedness for war. For the same reason they cannot allow themselves to be distanced in the number of their forces. If one nation arms the whole of its able-bodied population so must another. Prussia set the example, and it is

seen what Prussia has done. It only remains—such is the logic of the hour—to lay the lesson to heart, and improve upon it if possible. All the Great Powers, ourselves excepted, have adopted the same system, and it is imitated as far as circumstances will permit by the smaller States. Even the States which have been recently founded in the south-east of Europe out of the fragments of the Turkish Empire—Roumania, Servia, and Bulgaria—are prepared on an emergency to summon all their people to arms. France and Germany still go on perfecting their respective systems and extending their forces, each watching carefully against the chance of being outstripped in any particular. Ever since the Franco-German war all Europe has been sitting at the feet of Prussia, recognising it as the great revolutionist and teacher of the military art, and eager to learn its methods. The Prussian system has been extended to the whole of Germany, and, with some reservations as regards Saxony, Bavaria, and Wurtemberg, the military forces of all the German States form but a single army, which is placed under the orders of the German Emperor.

EUROPEAN ARMAMENTS.

WE may now proceed to show what are the existing military and naval forces of the different States of Europe, taking the “Statesman’s Year Book” as our chief authority, and beginning with

GREAT BRITAIN.

THE army of the United Kingdom, as voted by Parliament, consists of 153,696 men of all ranks, of which 13,316 are cavalry, 30,000 are in the artillery and royal engineers, and 87,896 are infantry, the rest belonging to various departmental corps. These are the regular forces, excluding regiments on service in India, which rank upon the Indian establishment. These troops, however, form a part of the British army, and may be taken into account here. They number 72,496 men of all ranks. The reserve forces include the army reserve, 72,710; the militia, 141,488; the yeomanry cavalry, 14,186; and the volunteers, 262,613. Some deductions have to be made for regiments wanting their full complement, but an official return gives 707,242 as the total number of men of all ranks on the various establishments of the army at home and abroad for the year 1891–92. The number of men provided for the navy for the same year included 44,734 officers and seamen for the fleet; boys in service and in

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

training, 7,149; marines afloat and on shore, 13,879; coast guard, 1,200; and officers of the various services, 1,038; making a total of 21,000. To these must be added 21,445 officers and men of the royal navy reserve, 3,010 seamen and marine pensioners reserves, and 200 naval artillery volunteers, making, with a few officers on salary, the total number of officers and men provided for the naval establishment 97,584.* For the total cost of our military and naval establishments we have to turn to the estimates presented in the House of Commons. It is unnecessary for our purpose to enter into details, but one or two points must be noted. Both for the army and navy a distinction is drawn between effective and non-effective services. The former explain themselves; the latter include half-pay, retired pay, and pensions of various kinds, and they are of a considerable amount. The non-effective services of the army cost £3,092,000, and those of the navy £2,023,100. But all these various items must be reckoned as part of the expenditure on the army and navy, which reaches these figures for the year 1891-92; army, £17,545,300; navy, £14,215,100; or, taking both together, a total outlay of £31,760,400.

COLONIES AND DEPENDENCIES.—Most of the self-governing colonies have made some provision for defence. As a rule the liability to serve in the militia is universal, but we shall take account only of those forces which are registered and either embodied or liable to be called out for immediate service. India, of course, holds a distinct position of its own. In addition to the large British force which is always maintained there at the cost of India, and which has been included in our statement of the strength of the British army, there is a native army of 144,839 men of all ranks. There are also special contingents amounting to 18,000 men furnished from the armies of the feudatory states. The armies kept by the feudatory states, whether for show or defence, number 349,835 men. They are said to be undisciplined, and no estimate can be given of their cost. The total expenditure on the military establishments maintained by the Indian Government is £16,423,650. In Canada there is an "active militia force" consisting of 37,613 men, who are called out for drill sixteen days in the year. The cost of the militia and defence is £257,403. The land force of New South Wales consists of 9,285 men. They include a regular force of 538 men; the rest belonging to the volunteers or the reserve. The total cost of defence is £228,043. In Victoria there is a land force of 5,571 men, and a naval force of 615. The cost of defence is £238,296. Queensland has

* We do not enter into the details of naval armament, the number of ships, tonnage, guns, &c. A mere enumeration would be misleading, and the cost is spread over previous years. The strength of the service is shown by the number of men employed and the money expended.

a "drilled force" of 4,500 men, including the militia, who are paid for each day's drill, and volunteers; South Australia, 2,200 men; Tasmania, 2,100; Western Australia, 700. The cost of these small establishments is not easily detached from the other accounts. Probably an aggregate of £50,000 would be a fair estimate. New Zealand has a volunteer force of 8,812 men, and the cost is probably about £100,000. The local forces maintained in the other British colonies, not being Crown colonies garrisoned by the regular army, are too small to require special notice.

FRANCE.

THE French army is based, as has been said, on the principle of universal liability to military service. Substitution is forbidden. Every Frenchman not personally unfit may, from the age of twenty to that of forty-five, be called upon to enter the active army or the reserves. Those taken by ballot for the yearly contingent are required to serve three years in the active army, six in the reserve, six in the territorial army and ten in the territorial reserve. The active army is distributed all over France; the territorial army is settled in the districts to which the men belong. The French active army, including the gendarmerie and the Garde Republicaine, amounts at the peace establishment to 570,603 men of all ranks. The territorial army numbers 37,000 officers and 579,000 men in the ranks. Including the various classes of reserves France could put 2,500,000 men in the field, and taking into account the number of able-bodied men who have received some military training, but have been in various ways excused from service, the total military strength which France could muster amounts to 3,750,000. The number of officers and men in the French navy, including marine infantry and artillery, is 56,108. This naval force is based upon a maritime conscription including all seafaring men between the ages of eighteen and fifty, to which the same regulations apply as those relating to the army. The cost of the army, ordinary and extraordinary, as fixed by the budget for the present year, is £26,820,828; that of the navy is £8,516,136; the two together amounting to £35,336,964.

GERMANY.

THE German army, like that of France, is based upon conscription and no substitution is allowed. Every German capable of bearing arms has to be in the standing army or navy for seven years, as a rule, from the age of twenty to that of twenty-eight. Of these seven years the first three must be spent with the colours in camp or barracks life. At the end of the three years the men pass for the next four into the reserve, following their civil occupations, but bound to join their regiments when orders to that effect are issued. On leaving

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

the reserve they enter the Landwehr, which, as the name implies, is intended mainly for territorial defence, though it is liable to serve abroad. For five years they belong to the first "ban" of the Landwehr—that which will be called out first, passing for the next seven years into the second ban. It must be said that the system undergoes some modification in practice. Of those who in any year reach the age of twenty a certain contingent is sufficient to replenish the ranks of the regular army. The requisite number are taken by ballot. The rest pass at once into the Ersatz reserve, in which the period of service is twelve years, and afterwards into the Landsturm, which also has its first and second ban, and includes all Germans between the ages of seventeen and forty-five who are not otherwise connected with the army. It is a general and supplemental levy, taking in those between seventeen and twenty, at which latter age liability usually begins, and picking up all who for any reason may have been left out of the regular organisation. The German army on a peace footing comprises 511,737 men of all ranks. No official returns of the war strength of the army are published, but from a report made in 1888 to the Intelligence Department of the British War Office an approximate estimate may be gathered. Including the garrison army along with the field army, we have a total of 2,234,631 men of all classes and ranks. Adding the Landsturm and special services, the number of men that Germany could bring into the field on an extreme emergency may be estimated at about 3,000,000. The German navy is of recent growth, but great efforts are made for its expansion. The number of seamen of all ranks employed in the service is 17,071. The cost is, for the army, £20,655,900; for the navy, £2,140,900; total, £22,796,800.

AUSTRIA-HUNGARY.

THE army of Austria-Hungary is based on the same principle that obtains in France and Germany, but the arrangements are more complicated. The active army and the Landwehr are not in organic connection with each other, and each has its own supplementary reserve. At the same time some freedom of choice is allowed as to which a man shall enter. The active army is raised from and employed for the whole monarchy; the Landwehr, which is necessarily of a territorial character, has a separate organisation for the two parts of the monarchy. The Landsturm gathers up and finally receives all from the age of nineteen to that of forty-two. The whole army on a peace footing numbers 337,419 men of all ranks. On a war footing the active army mounts up to 996,727, the Landwehr to 434,320, and the Landsturm to 441,122, a total of 1,872,178. In time of war the limit of age could be extended for the Landsturm, which might then reach a total of 4,000,000. The navy on a peace

footing employs 8,740 seamen, officers included. It rests upon a maritime conscription, and the same regulations apply to it as to the army. The cost of the army for the whole monarchy is £10,143,375 and of the navy £968,976. To these sums have to be added for Austria £1,254,563, and for Hungary £999,226, making an aggregate total of £12,366,140.

ITALY.

THE Italian army is based upon universal liability to military service but there are numerous exemptions, and after certain periods of training have been gone through unlimited leave of absence is granted very extensively. The army consists of three great divisions, the permanent army, the mobile militia, and the territorial militia. The annual conscription amounts to about 200,000 men, out of whom 82,000 serve in the permanent army, the infantry for five, the cavalry for four, and the other arms for three years. They are then dismissed on unlimited leave, their names remaining on the roll, the infantry for four, the cavalry for five years longer, when they pass into the territorial militia. The rest of the annual conscription is divided into two classes, in one of which the men, after completing their period of service in the permanent army, are enrolled in the mobile militia for twelve years before passing into the territorial militia. The men of the other class are enrolled at once in the territorial militia, but have unlimited leave of absence. The strength of the army is as follows:—Permanent army, men and officers with the colours, 276,000; on unlimited leave, 566,152; mobile militia 449,016; territorial militia, 1,553,158; total, 2,844,339. The number of men of all ranks actually employed in the naval service is 21,030. There is a naval reserve of 49,292 officers and men. The cost reckoning twenty-five lire to the pound sterling, is for the army £9,725,958; for the navy, £4,160,418; total, £13,886,376.

RUSSIA.

THE Russian military service is obligatory from the twenty-first year. About 800,000 men reach the military age annually. Of these 200,000 enter the active army; the rest are inscribed in a first and a second reserve. The period of service is, in the European territories, five years in the active army, thirteen years in the first reserve, and five years in the second reserve. The period of service varies in the Asiatic parts of the empire. The whole army is divided into field troops, fortress troops, local troops, first reserve, second reserve, and auxiliaries. On the peace footing the army reaches a total of 843,000 men of all ranks; on a war footing the force which could be put in the field is estimated at 2,532,496. The number of officers and seamen employed in the Russian fleet is 28,812. The

 THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

period of service is ten years, three of which are spent in the reserve. The cost, reckoning the rouble at two shillings, is for the army, £22,665,216; for the navy, £4,375,992; total, £27,041,208.

BELGIUM.

THE Belgian army is formed partly by conscription and partly by voluntary enlistment. Legally the liability to military service is universal for able-bodied men who have completed their nineteenth year, but substitution is permitted. The period of service in the army is eight years, of which, however, four or five are usually spent on furlough. The contingent annually required is about 13,000 men. On a peace footing the strength of the army amounts to 47,711 men of all ranks. In time of war the number could be raised to 154,780. There is a local force of 44,339 men in addition to the standing army, but it is included in the estimate for the war footing. The cost of the army is £1,878,423. Belgium has no navy.

THE NETHERLANDS.

THE Dutch, like the Belgian army, is formed partly by conscription and partly by enlistment. The nominal period of service is five years, but at the end of the first year the men are sent to their homes, and for the rest of the term meet only for a drill of six weeks annually. There is also a militia, to which all belong from the age of twenty-five to that of thirty-five. They are divided into three classes, according as they are married or unmarried, and with few or many children, those whose family obligations are the lightest being the first to be called out. The army on a peace footing comprises 23,266 men of all ranks; on a war footing about 69,000. The Landsturm, which could be called out on emergency, includes every man capable of bearing arms. The Dutch navy employs about 6,500 officers and men in actual service. There is also a marine infantry, consisting of 2,250 officers and privates. The cost of the army is £1,774,932; of the navy, £1,173,368; total, £2,948,300.

THE DUTCH EAST INDIES.—These constitute an important colony, containing a population of nearly 30,000,000. The local army consists of 33,931 officers and men, about one-half of the rank and file being natives. There are also about 1,500 men in the local navy. The cost of defence is estimated at one-third of the revenue, which would make it about £3,569,000. There is also a local force in the Dutch West Indies, but it is inconsiderable.

SPAIN.

THE Spanish army is organised on the French model. It consists of a permanent army, an active reserve, and a territorial reserve. The

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

liability to service begins at the age of twenty. The men serve three years in the permanent army, passing then for three years into the active reserve, and for six years into the territorial reserve. The present annual contingent to the permanent army is 90,000 men. The army on a peace footing has a strength of 115,735; on a war footing it is estimated at 1,083,595. The Spanish navy is manned by 10,000 sailors, and there are besides 7,000 marines. The cost is, for the army, £5,685,657; for the navy, £1,280,208; total, £6,965,865.

SPANISH COLONIES.—The most important of the Spanish colonies is Cuba. It has a local force of 20,000 men, the cost of which is given at £249,177. The adjacent island of Porto Rico spends in defence £41,940 yearly.

PORTUGAL.

THE Portuguese army is raised partly by conscription and partly by voluntary enlistment, the former being resorted to only when the latter fails to supply the number of men voted by the Cortes. The term of service is twelve years—three with the active army, five in the first, and four in the second reserve. The army in time of peace numbers 37,273 men of all ranks. Its estimated strength on a war footing is 150,000. The navy employs about 4,600 men, officers included. The cost is, for the army, £1,470,567; and for the navy, £704,784; total, £2,175,351.

SWITZERLAND.

THERE is no standing army in Switzerland. Every citizen of military age not exempt for bodily defect or other reason is liable to military service. The total number liable to serve is about 477,146; the number actually embodied is 220,358. Those who are liable but do not serve have to pay a special tax as the price of exemption. The forces of the Republic are divided into three classes, the Elite, the Landwehr, and the Landsturm. The first consists of all citizens capable of bearing arms from the age of twenty to that of thirty-two; the second of all from the thirty-third to the end of the forty-fourth year; the third comprises all men not otherwise serving from the age of seventeen to that of fifty. As a rule the Federal Government has only a portion of these forces under its direct control, each canton looking after its own men; but it has supreme authority in all military matters, and whenever it chooses the whole strength of the Republic is at its disposal. The recruits undergo a training of from forty-two to eighty days the first year, and the men of the Elite and of the Landwehr are called out for training periodically. The numbers enrolled are, in the Elite, 127,923; in the Landwehr, 80,272; in the Landsturm, 268,715; making a possible war strength

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

in extreme emergencies of 376,960 men of all ranks. The cost is partly borne by the cantons. That portion which falls to the Federal Government may be taken at £1,323,972.

DENMARK.

THE Danish army consists of all the able-bodied men in the kingdom as they reach the age of twenty-two. For the first eight years they belong to the regular army and the reserve, and for the next eight years to the supplementary reserve. The recruits drill for periods varying from six to nine months during the first year, and they are afterwards called out for some weeks annually. The total strength of the army is 40,700 men of all ranks, or 60,000 if the citizen corps of the capital is included. The extra reserve of 16,500 men, which is called out only in extreme emergencies, would raise the entire force to 75,000. The Danish navy employs 1,417 men, including officers. The cost is, for the army, £598,775 ; for the navy, £377,933 ; total, £976,708.

SWEDEN AND NORWAY.

IN military as in civil matters Sweden and Norway are almost separate powers. The Swedish army has a peculiar organisation. It consists of three classes. The first is composed of a small number of men enlisted for special corps. The second is made up of men who have settled homes throughout the country, the privates being maintained by the landowners. Each man, in addition to his small pay, usually has a cottage and a piece of land which remain his during the whole period of service, sometimes extending to thirty years. The third class consists of troops raised by conscription from the male population between the ages of twenty-one and thirty-two. This class is subdivided into twelve classes, according to age and family circumstances, of which six belong to the Landsturm. The army of Sweden comprises 39,543 troops of the line, including all arms and ranks. These are drawn from the first and second main classes and from the regular army. Adding those of the third main class, including the Landsturm, the number is raised to a grand total of 313,143 men of all ranks. The number of seamen in the Swedish navy is 4,164. There is also a naval reserve and a marine conscription, the latter amounting to 30,000 men. The cost of the army is £1,148,333 ; of the navy, £347,705 ; total, £1,946,038.

The military forces of Norway are raised chiefly by conscription, to which, with the exception of those of the three northern districts who are exempt from land service, all able-bodied men are liable from their twenty-second year. They are divided into the troops of the line, the Landvaern, and the Landstorm. The troops of the line are drilled for from forty to seventy days for three or four years,

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

according to the arm in which they serve, and are then dismissed under orders to be ready when called for. The army of the line with its reserves figures on the rolls at 40,850 men of all ranks, but the number in actual service cannot be raised beyond 18,000 either in peace or war without the consent of the Storthing, the Norwegian Parliament. The navy is manned by 1,162 seamen, and there is a maritime conscription amounting on the register to 23,000 men. The cost of the army is £434,519; and of the navy, £120,873; total, £555,692—making for Sweden and Norway together £2,503,730.

GREECE.

LIABILITY to military service prevails in Greece for the whole of the able-bodied male population between the ages of twenty-one and forty. Two years, shortened by furloughs, are spent with the colours, eight years in the reserve, and the rest in the Landwehr. The nominal strength of the active army is 28,224 men of all arms. On a war footing it could be raised to 100,000. Extreme estimates of the number of men that could be brought into the field in case of emergency go much higher, but they are probably exaggerated. The entire population is only 2,187,208. The navy employs nearly 4,000 men, officers included. They are raised chiefly by conscription among the people of the coast, and serve for two years. The cost of the army is £720,771; of the navy, £222,547; total, £943,318.

ROUMANIA.

THE army of Roumania consists of two main divisions, the permanent army and the territorial army, with their reserves. There is also a militia and a Landsturm, or general levy. Every Roumanian from his twenty-first to his forty-sixth year is obliged to serve either three years in the permanent army and five in the reserve, or five years in the territorial infantry and three in the reserve, or four years in the territorial cavalry and four in the reserve. Conscription is employed for filling the ranks of the permanent and territorial army. The men required for the annual contingent are chosen by lot, and all upon whom the lot does not fall go at once into the militia, as do those also who have served their time in the regular army. The Landsturm includes all men capable of bearing arms who are not otherwise connected with the army. The geographical position of Roumania between the Russian frontier and the Danube, and barring the way to the Balkan peninsula, renders its military organisation a matter of special importance. The great assistance it gave to Russia in the late war with Turkey may be said to have established its military reputation. The strength of the permanent army in time of peace is 51,771 men of all ranks; that of the territorial army is 81,843. The militia probably numbers 33,000.

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

The Landsturm cannot be accurately estimated. Roumania has a small navy, manned by 1,526 officers and men. The cost of defence, military and naval, is set down at £1,534,224.

SERVIA.

THE Servian army consists of three classes—first, the standing army with its reserves, composed of men from twenty to twenty-eight years of age; the second, corresponding to a Landwehr, into which men pass from the standing army and serve till they are thirty-eight; the third almost answering to a Landsturm, which includes men from the age of thirty-eight to that of fifty. The force always on foot amounts to 18,000 men, which can be raised at once to 100,000 by taking in the reserve. The second and third classes number each about 55,000, so that the total strength of the army may be taken at 210,000 men. Unlike other armies similarly constituted, some part of all three classes are always on an organised footing, and the whole can be called into the field for purposes of defence on the royal order being given. The cost of the army is £349,564.

BULGARIA.

BULGARIA is nominally a tributary province of Turkey, but it is on the verge of becoming an independent State, and already exercises many of the rights of independence. Among them is that of maintaining an army of its own. Its fighting capacity was shown in the short but sharp encounter with Servia a few years ago, when its troops were commanded by Prince Alexander of Battenburg. Military service is obligatory. The strength of the army on a peace footing is 35,000 officers and men. In time of war it might probably be raised to 125,000. Bulgaria has also a small navy, manned by about 350 officers and men. The cost of defence is £824,697.

MONTENEGRO.

To finish the round of Europe we may take in this little State which is interesting from the mere fact that it has maintained its independence for five hundred years, when the rest of the Balkan countries were all under the Turkish yoke. It has no standing army, but every man capable of bearing arms is a trained soldier, and the number it could bring into action for defensive purposes is probably 30,000.

ASIA—THE TURKISH EMPIRE.

AT the Sea of Marmora we cross into Asia. Turkey has still a foothold in Europe, notably Constantinople, the famous capital of the Empire, but its stay on this side of the Bosphorus is precarious, and its military strength resides in its Asiatic provinces. Turkey

has Russia and Persia for its neighbours in Asia. The Mediterranean forms its boundary as far as Egypt, which holds the rank of tributary province. The nominal sovereignty of Turkey includes almost the whole of the vast peninsula of Arabia, though it has but a shadowy authority in the interior. The Christian races of Turkey are not permitted to carry arms and form no part of the army. They pay a special tax instead. Every Mahomedan is required to present himself for military service on reaching the age of twenty. The whole number arriving at the military age are divided into two classes, those who can allege no claims to exemption and those whose family circumstances furnish some excuse. Those of the first class are distinguished into the first and second levy. The men of the first levy are drafted into the Nizam, or regular army, and serve for twenty-eight years, viz., six with the Nizam and the first reserve, eight in the Redif, or Landwehr, and six in the Mustahfiz, or Landsturm. It will be seen how closely Turkey follows the German system of organisation. The men of the second levy are trained for six or nine months with a battalion of the regular army, and are then dismissed to their homes, on the condition that they present themselves for thirty days' training annually. Those who formed the second conscription class, though excused from actual service, have their place in the Landsturm. The regular army amounts on a peace footing to 158,810 men of all ranks and arms. It is believed that when the new system has been brought thoroughly into working order Turkey will be able to bring 800,000 trained men into the field. Till lately Turkey was regarded as a respectable naval power, but its navy, through impoverished finances, has been suffered to fall into decay. It has still, however, a few first-rate frigates, and a certain number of serviceable vessels. The navy roll musters a total of 30,929 officers and men, besides 9,460 marines; total, 40,389. There are no very authoritative estimates of the sums expended by Turkey on its armaments. Perhaps £4,000,000 may be put down for the army and £500,000 for the navy, making together £4,500,000. The pay of both services is constantly in arrear.

PERSIA.

According to official reports the Persian army numbers 105,500 men. But of this force only one-half is liable to be called into active service, and the strength of the standing army does not exceed 24,500. The army is raised according to provinces, districts, and tribes, suggesting a survival from the custom of very ancient times, and the men who once enlisted serve for life. The commanders are, as a rule, tribal chiefs of the district. The army has been under the training of European officers for the last thirty years, but the results are not very formidable, and Persia owes what security she possesses rather

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

to the rivalry of her powerful neighbours, Russia and England, than to her own military strength. The cost of the army is of uncertain amount, but we may, perhaps, estimate the 18,000,000 krans, which are said to be spent upon it, at about £500,000.

AFGHANISTAN.

WE have only too good reasons for knowing that the Afghans can fight bravely, and it may be considered as certain that the present Ameer has a trained body of troops at his disposal, but there are no trustworthy materials for estimating its numerical strength. The Afghans are divided into clans more or less powerful, much as the Scotch Highlanders were two centuries ago. The military forces of the Ameer depend upon the number and relative importance of the tribal chiefs whom he can rally to his standard. The retainers they bring with them may be regarded as auxiliaries to the troops in his pay. It has been said that the Afghan army numbers 50,000 men, and this, perhaps, may be accepted as a conjectural estimate. At present the country is in a very disturbed state, and our own relations with the Ameer are on a precarious footing. We are likely to learn more of his military resources before long.

SIAM.

PASSING by India, which has been dealt with as one of our own dependencies, and Burmah, which is included in our Indian administration, the next organised State we reach is Siam, a country of considerable interest both on account of the signs of advancing civilisation which it exhibits, and of its geographical position between the French in Tonquin and the range of British influence beyond the Burmese frontier. An Asiatic State is not to be despised where the king governs in concert with a council of ministers, and a departmental cabinet is on the point of being formed. There is a small standing army, and every male inhabitant from the age of twenty-one is bound to serve the State for three months each year. The Chinese settlers are exempt, but have to pay a commutation tax. Others may secure exemption by paying a fine of six or eight ticals a month, a tical being about two shillings, which makes the fine rather heavy. Those who do not pay the fine are permitted to furnish a substitute. The Government is said to possess 80,000 stand of arms. The army is under European training, and has largely increased of late both in numbers and efficiency. No figures can be given on official authority, but a population which, excluding Chinese, is estimated at 5,000,000, might be expected to furnish at least 100,000 men. Considering the efficient organisation which seems to be in force the number might be much greater.

CHINA.

THE military forces of the Chinese Empire fall, according to the official authorities, under two leading divisions. There is first the army of the "Eight Banners," a designation dating apparently from the conquest of China by the Manchus in 1644. It is said to reach a total of 323,800. There is next a national or territorial army with 6,459 officers and 650,000 privates. The estimate formed by Captain Norman seems to corroborate these statistics. He gives 70,000 men to the army in Manchuria, and 50,000 to the army of the centre, with a third army in Turkestan, and says that they can be doubled in time of war. Assuming that the Turkestan army is 40,000 strong, the number of men in the three armies on a war footing would be substantially the same as that given by the Chinese authorities for the army of the Eight Banners. Captain Norman estimates the territorial army, or militia, at 200,000 on a peace footing and 600,000 on a war footing, which also agrees with the Chinese accounts. It is certain that the Chinese Government have taken great pains of late with the improvement of the army, and still more with the improvement of the navy, which is now on a considerable scale, including some ten armour-clad vessels built in Europe, and a large number of torpedo and gun boats. The fleet is divided into two squadrons, one for service on the north coast, the other with Foochow as its centre. There are also flotillas at Shanghai and Canton. The military and naval force of China is regarded with apprehension in some quarters. The population, which at the lowest estimate is 282,000,000, affords a vast recruiting ground. The Chinese are among the cleverest and most adaptable people in the world. They are docile, cheaply fed, and brave, having a sort of contempt for death. The Government is slow in its movements, but capable of looking ahead and persistent in the policy it sees reason to adopt. This was notably seen in its suppression of the revolt of Kashgar, where a local Mahometan chief threw off the Chinese yoke and proclaimed his independence. Several years were spent in preparation and the army marched a distance of two thousand miles from Peking, but the revolt was effectually suppressed, and the Russians, who had taken advantage of it to extend their frontier, were forced to withdraw within their former limits. It is unpleasantly suggestive that a further march of the same length would bring a Chinese army to the neighbourhood of Moscow and St. Petersburg. The extensive emigration of the Chinese in the countries of the North Pacific and the possible development of their naval power are regarded with some concern by our Australian colonies. China has perhaps to be reckoned with as one of the Great Powers of the future in that part of the world. The annual cost of the Chinese army and navy is estimated at £15,000,000.

JAPAN.

JAPAN may be regarded as almost a political miracle. Thirty-five years ago it was still the seat of a feudal system resembling that which formerly flourished in Europe. Great chiefs at the head of their retainers were the rulers of the country, the supreme power being exercised through a hereditary official who held rank as acting king or emperor, while the sovereignty was recognised as belonging to the real emperor, who and whose predecessors had for centuries been kept in seclusion. Down to 1868 Japan had been a sealed country to all foreigners except the Dutch, who held a few privileges. The resistance of the feudal authorities to foreign intercourse, and the disputes to which their opposition led, were the occasion, though probably not the cause, of their downfall. The rapid development which has since taken place shows that the Japanese could not have endured the old system much longer. Almost as if at a given signal the feudal aristocracy vanished, the real emperor, the Mikado, emerged from seclusion, and took in hand the reins of power. Peace was made with the foreigner, the ports were thrown open to trade, and Japan seemed to start industrially and commercially on a new career. Its political progress is even more surprising. Apparently taking England as their model, the Japanese have now a House of Peers, a House of Representatives, and a Cabinet Government. They seem even to have had some thoughts of changing their religion, but they are content with tolerating all.

In military matters the Japanese have followed the German example. All able-bodied males of the age of twenty are liable to serve for seven years in the standing army, three of which are spent with the colours and the other four in the reserve. On leaving the reserve they pass into the Landwehr for another five years, and then enter the Landsturm, to which all males from seventeen to forty years of age not otherwise connected with the army must belong. The army on a peace footing numbers 78,017 men of all ranks and arms; the Landwehr, 96,845; the Landsturm, 70,659; making a total of 245,551. In connection with the army there are a staff college, a military college, a cadet college, a military school, a gunnery school, and a school for non-commissioned officers, with an aggregate of 2,360 students. Japan has also an important navy, including one ironclad, several steel vessels for coast defence, thirteen steel and composite cruisers, six gunboats, twenty-four first-class torpedo boats, one seagoing torpedo boat, and eight unarmoured vessels. The navy is manned by 11,984 seamen, officers of all ranks included. The strength of the navy is kept up by conscription, with periods of

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

service corresponding to those of the army. The cost of the Japanese army is about £2,084,527; of the navy, £985,411; total, £3,069,938.

AFRICA.

THE further from civilisation the further we are from standing armies. The Nile valley is one of the very oldest seats of civilisation, one of the places where it had its earliest birth, and the African coast opposite Sicily is the site of Carthage, the great trading power of antiquity and the rival of Rome. But these are ancient laurels which have long since faded. Civilisation in Africa never extended beyond a narrow strip running along the coast of the Mediterranean and the valley rendered fertile by the annual inundations of its most important river. The rest of the vast continent was as little known to the ancients as it remained till almost the other day to ourselves. When the era of maritime discovery set in the Portuguese and the Dutch formed settlements at a few points on the West and the East Coast and at the Cape. These, some of which have changed hands, are the older colonies of to-day. Other settlements and "spheres of influence" have sprung out of the recent distribution of territory between France, Germany, Italy, and Great Britain. These colonies are protected by the States to which they belong, and the same may be said substantially of the group of self-governing communities extending from the Cape to Natal. There remain but three or four native States, and such military forces as they maintain may be briefly summarised. In Egypt, besides the English army of occupation, 3,300 strong, there is a native army of 13,000 men under the training of English officers. The cost of the Ministry of War, including the pay of the English troops and also the police and prisons, is £697,839. The army kept on foot by the Sultan of Morocco numbers 12,400 men, and it is said that in time of war it could be raised to 40,000. The Sultan of Bornu, one of the states of Central Soudan, is credited with an army of 30,000 men, and two other chiefs in the same neighbourhood with 7,000 and 1,000 respectively. Abyssinia has a fighting force, as we know from its achievements, but its number cannot be ascertained. Madagascar belongs geographically to Africa, and though under French protection its independence is not wholly lost. It is said to have a standing army of 20,000 men, which at the time of the French invasion was raised to 50,000.

AMERICA.

THE political circumstances of the American States generally are very different from those which are found in the old world. As compared with Europe the sentiment of nationality is less strong.

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

The territorial boundaries are of recent date, and in the central and southern parts of the continent are frequently changing. The larger States have no dangerous neighbours against whose designs they have to be constantly on the watch, and the smaller States are too weak in population and resources to be able to spend much money on armaments. As a rule some permanent force is kept up, but when war breaks out the private citizen becomes a soldier.

THE UNITED STATES.—The army of the United States is limited by Congress to 25,000 men, besides officers, of whom there are 2,169. This is the Federal force. Each state has a militia of its own, but the organisation is not maintained in a very vigorous condition. The number on the rolls of the militia amounts to 106,269 men, with 8,312 officers. The proportion of officers both for the regular army and the militia is unusually large. It is estimated that the number of men who might be mustered in the militia in case of war is upwards of 7,500,000. Till lately the United States navy has been neglected. They have now fourteen vessels of the new type in commission, and others, including two first-rate armoured ships and one armoured ram, are being built. When these are finished the total number of battleships and cruisers will be twenty-three. The navy is manned by 7,500 men, with 726 officers. There is also a marine corps of 2,177 officers and men. The total strength of the navy is 10,403. Adding to these the officers and men of the regular army, the total for both services is 37,572. The cost of the United States army is £9,744,013; that of the navy, £5,222,779; total, £14,956,792, being the largest in the world in proportion to the number of men employed.

MEXICO.—The Mexican army numbers 30,000 men of all ranks and arms. It is estimated that this strength could be raised to 160,000 men in case of war. The navy is but of small account. The cost of the army and navy is £2,531,620.

GUATEMALA.—Army, 3,718 officers and men; reserve militia, 67,300 officers and men. Cost, £132,000.

COSTA RICA.—Army, 600; estimated strength of the militia, were the whole of the men between eighteen and fifty called out, as on emergency the law requires, 31,824. The cost of the army is about £90,000.

VENEZUELA.—The regular army consists of 5,760 officers and men. The national militia, in which every man from the eighteenth to the forty-fifth year must be enrolled, has a strength, on paper, of 250,000. In the civil war lately raging there were probably 60,000 of the militia in arms. The cost of the army is given at £219,594.

COLUMBIA.—The army is fixed on peace footing at 5,500 men. Every Columbian is bound to serve if required. The cost of the army may be estimated at £200,000.

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

ECUADOR.—The army numbers 3,341. The militia is estimated at 30,000. Reckoning the cost of the army at a fifth of the total expenditure, it would be about £100,000.

BRAZIL.—The army of Brazil numbers 29,477 men of all ranks and arms. There is also a considerable navy, including armour-clads and turret ships of the modern type, and employing 8,900 officers and men. The cost of the army is about £3,323,147; that of the navy about £1,513,135; total, £4,836,282.

ARGENTINE REPUBLIC.—The army consists of 5,585 men of all ranks and arms, comprising an enormous proportion of generals and field officers. The militia is estimated at 236,000 men. There is also a small navy, manned by 1,530 officers and men. The cost of the army is £1,901,567; of the navy, £805,881; total, £2,707,248.

PERU.—The Peruvian army contains 5,900 of all ranks and arms. The navy is inconsiderable. The total cost is £376,329.

CHILI.—The regular army is restricted by law to 5,835 men. The strength of the national guard, a citizen force, is estimated at 48,530. There is also a small but efficient navy, of which much was heard during the late war with Peru. It is manned by 1,940 officers and men.

BOLIVIA.—The Bolivian army numbers 1,252 officers and men. All able-bodied citizens are bound to serve in the national guard. The cost of the army is £228,519.

URUGUAY.—The regular army consists of 3,482 officers and men. There is also a citizen force of 3,264 men. The finances of the Republic are in a disordered state, and no estimate of cost can be given.

SUMMARY.

WE have now gone round the world, surveying the military portion of mankind "from China to Peru," though not in the geographical order which seems to have been present to Dr. Johnson. We have seen how many men are employed by each State in the army and in the navy, where a naval force exists, and the amount of money spent in maintaining the two services. It would seem that the next thing we have to do is to bring these aggregates together so as to enable us to see the figures to which they reach, and we must endeavour to do this in the way which will be at once both complete and commodious to the reader. The tabular form suggests itself, but it is to be avoided except when absolutely necessary, and there is a special difficulty in adopting it for our present purpose. Owing to the great variety of classification which prevails in different countries it is not easy to group the different classes of troops in the same columns and under the same headings. On the whole the better plan will perhaps be to sum up the details in a few numerical

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

aggregates, suppressing our calculations and giving only the results, with such explanations as may be needful for the sake of accuracy. When this has been done, a few tabular figures will exhibit to the eye the final facts. The most important part of the armaments of the world are the regular forces, or, as they are usually called, the active armies. The troops composing these armies are for the most part always in actual service, and most of the money which is devoted to military expenditure is spent upon them. The smaller States are forced to economise, for which reason those of their troops that belong to the regular army are not kept in barracks or camp the whole year round. In Switzerland, as we have seen, it is one of the first principles of the Confederation that there shall be no standing army, but a very large proportion of the population are trained as soldiers, and those who form the first "ban," or the Elite, may very well be reckoned in with the permanent forces of other countries. Taking account of these variations from the type fixed by the usage of the Great Powers, the total number of men in the active armies of Europe is found to be three millions, two hundred and seventy-four thousand, nine hundred and forty-one. Next to the standing armies come the reserves. They are composed of the men who have served their time in the active army, but who still form part of the army and are ready to join the ranks at the first summons. They are called by various names, but they are substantially alike; they serve precisely the same purpose, and may all be classed together. The army reserves of all the European Powers number six millions, four hundred and fifteen thousand, nine hundred and fifty-four. After the reserves come forces of different descriptions, and with different degrees of obligation as to the circumstances in which they may be called out, but they include none but those who have received some military training, and they form an organic portion of the national army. They may all be included under the Landsturm, or general levy—such a levy as would be resorted to by Germany or France in case of invasion. The numerical strength of the general levies of all the European Powers amounts to seven millions, ninety-nine thousand, seven hundred and eighty-seven. Adding all these forces together we get a grand total of sixteen millions, seven hundred and ninety thousand, six hundred and eighty-two.

In Asia, military organisation is naturally of a looser texture. The population, as a rule, are less absorbed in industrial pursuits. Their time is less valuable and life is cheaper. On the whole, the political condition of Asia is much more stable than that of Europe. The people are more lethargic and the governments less ambitious. The sentiment of nationality is less predominant and less exacting, nor is there any such apprehension of territorial changes as those which keep Europe in constant turmoil. Turkey is to some extent an

exception; but Turkey, through the possession of Constantinople, is involved in the meshes of the European system, and the popular religion does the work of national sentiment. The standing armies of all the Asiatic States, including the native armies of India, number one million, three hundred and twenty thousand, two hundred and eighty-seven. In Asia, with the exception of Japan, there are no forces answering to the reserves of Europe, but everywhere there are forces which can be brought to the help of the regular armies in the event of war, and which may be said to correspond to the Landsturm or general levy of the European nations, though they do not comprise so large a proportion of the population. The total number of these additional forces amounts to one million, two hundred and ninety-six thousand, four hundred and forty-one. Adding these to the regular forces, we have a total of two millions, six hundred and sixteen thousand, seven hundred and twenty-eight.

Of Africa there is little to be said beyond the general remarks which have been already made. The active forces may be set down at eighty-three thousand, four hundred, and the number that can be added to them in time of war at fifty-seven thousand, making together one hundred and thirty-nine thousand.

In America, with the exception of Mexico and Brazil, we find the standing armies numerically small as compared with the population, but in all cases there is a numerous militia. The regular forces of all the States comprise one hundred and twenty-seven thousand, six hundred men; the other forces which are bound to serve in time of war, nine hundred and sixteen thousand, one hundred and eighty men; making a total of one million, forty-three thousand, eight hundred.

The Australian militias and volunteers amount to a total of thirty-two thousand, six hundred and thirty.

Adding together all these aggregates, we get at the total strength of the armies of the world—twenty millions, six hundred and twenty-two thousand, eight hundred and forty-five.

The number of men engaged in the regular naval services is for Europe, two hundred and sixty-three thousand, and fifty-eight; for Asia, sixty-two thousand, two hundred and seventy-three; for America, twenty-two thousand, seven hundred and seventy-three; making a total for the navies of the world of three hundred and forty-eight thousand, one hundred and four.

Adding the military and naval forces together, we have twenty millions, nine hundred and seventy thousand, nine hundred and forty-nine as the total number of men in the armies and navies of the world.

The cost at which these forces are maintained is for Europe, armies £125,300,411, navies £38,524,940; for Asia, armies

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

£22,507,650, navies £1,485,411; for Africa, armies £679,839; for America, armies £19,104,392, navies £7,541,795; for Australia, military forces, £763,339. Putting these figures together, we have as the total expenditure on the armies and navies of the world £215,907,777, or let us say nearly two hundred and sixteen millions a year.

It may now be convenient to present these aggregates in a short tabular form.

	Armies.	Cost.	Navies.	Cost.	Total Cost.
		£		£	£
Europe	16,790,682	125,300,411	263,058	38,524,940	163,825,351
Asia	2,616,728	22,507,650	62,273	1,485,411	25,993,061
Africa	139,000	679,839	....	....	679,839
America	1,043,805	19,104,392	22,773	7,541,795	26,646,187
Australia	32,630	763,339	....	....	763,339
Total	20,622,845	168,355,631	348,104	47,552,146	215,907,777

NATIONAL DEBTS OF THE WORLD.

AFTER the explanations which have been given it is hardly necessary to point out that only a comparatively small proportion of the number of men comprised in the above figures are actually under arms, but they all belong to the organised forces of the world; they are all kept in hand, ready to be called out in case of emergency. No deduction has to be made from the figures showing the cost incurred. The enormous aggregate sum is actually raised and expended every year. Unfortunately the past has not borne its own burdens. The cost of war has constantly been found greater than the national revenue was able to defray within the year, and the balance has been carried to debts on which posterity has to pay the interest. With us the process began two centuries ago and the burden has of late been diminishing. In other countries it began later, but during the present century the capital amount of national obligations has increased at a rapid rate. Occasionally loans have been raised, professedly at least, for the construction of railways and similar purposes, but the deductions to be made on this score are slight, so slight as not to affect the general statement that the national debts of the world have been incurred in carrying on war. Our national debt amounts to six hundred and seventy-nine millions, that of France to more than a thousand millions, and even so young a Power as Italy has a debt of more than four hundred millions. During the civil war the United States ran up a debt of six hundred millions, and it stands to day at about two hundred millions. The aggregate national debts of the world are not far short of five

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

thousand millions. Nor is there much hope that the furthest point has yet been reached. Everything portends an early conflict in Europe, and when it breaks out it can hardly fail to be on a colossal scale. Existing alliances point to a direct collision between five of the Great Powers, and extraordinary prudence will be required to keep the sixth from being drawn in. The moment it begins considerations of cost will be flung to the winds, and terrible from a financial point of view will be the fate of the vanquished. In any case a fresh pile of burdens will be heaped upon posterity. One cannot help asking how long this process is to go on. It is sad to think of the crushing weight which already falls upon the rural population of Italy and the wretched peasantry of Russia. France owes its wonderful elasticity to the productiveness of its soil and the thrift of its people, but even in France there must be a limit to the capacity for endurance. In Germany, where the soil is poorer and the people are poorer, there are manifest signs of impatience, though the public debt is comparatively small. If the continental nations give themselves up to another long spell of war and bloodshed it is difficult to see how some of them can escape bankruptcy. The collapse may be hastened by political agencies. A time may come when the people will refuse to pay for the follies of their ancestors, or even their own, and the sponge may be freely used.

CONCLUSION.

Looking back now to the point from which we started in reviewing the military history of Europe it would hardly appear at first sight that much progress has been made. The world is more civilised but it is not less quarrelsome nor less warlike, while the number of men who are kept regularly on foot for military purposes is greater beyond comparison. In the absence of standing armies every man had to be ready to defend his own hearthstone and to aid in defending the country against invasion. Now there are standing armies and the old personal liability to boot. Europe—Great Britain almost alone excepted—has borrowed from that earlier time the principle of universal obligation to military service, and has made it more systematic and more binding. The military enterprises now engaged in are on a grander scale, and the results are more destructive. Nevertheless there are some gleams of hope for the future. Europe is becoming more cosmopolitan. Interests are growing up which help to bring the nations together and to associate them for common purposes. The great mass of the people in all countries are very much in the same position, and the sentiment which pervades them does not make for war. The working men of different nations meet together in congresses. They are beginning to cherish feelings that

THE MILITARY AND NAVAL FORCES OF THE WORLD AND THEIR COST.

are broader than patriotism, and in proportion as they acquire power the causes of hostility may be expected to disappear. There are some questions to which it is already recognised that arbitration is applicable, and many disagreements which would at one time have unsheathed the sword have been settled in this peaceful fashion. Perhaps at present we cannot look much further in this direction, and time must be allowed for the growth of enlightened and humane sentiments. As yet nations, so far as they are represented by their governments, will persist in fighting over boundary lines and territorial acquisitions and even the prospective chances of political ascendancy. It is idle to indulge in utopian dreams, and where nations are concerned we should not deal in short reckonings. Single steps are to be counted by centuries. Our hopes rest mainly on the general elevation of the race, on the gradual improvement of mankind, and the influences which must be looked to for bringing about this result are slow in their operation. At present we shall have to be content with the belief, which there is much to foster, that the world on the whole is moving onwards. It is a homely but fruitful remark that if every citizen swept before his own doorway the whole city would soon be swept, and we may usefully remind ourselves of the international duties which we have to perform. We have abandoned the old policy of interference. We no longer think it incumbent upon us to play the part of the world's special constables, and to be present with our truncheons whenever a "row" takes place. But Great Britain is a world-wide Power, and has at many points interests which touch those of other nations. The greatest boon we could desire for our race is the chance of peaceful extension and consolidation for another fifty years. Difficulties will arise, and they must be encountered by the best means which prudence may suggest. But we can at any rate make "Peace" our motto, and in our dealings with other nations strive to set an example of forbearance, moderation, and goodwill.

OLD AGE PENSIONS.

BY R. L. EVERETT, M.P. FOR SOUTH-EAST SUFFOLK.

I TAKE up my pen with pleasure to write upon the above subject which has been much in my thoughts for some time past. It is plainly one of the coming questions of our time. I think I see that in the wise handling of it there lie great possibilities for the brightening of the lives of the masses of the people. I am glad too, to write for such readers as are likely to look into this book, viz., the members of our great co-operative societies. The experience they have had—remarkable among the experiences of the age—in successfully developing a new social force by the application of the principle of co-operation to the supply of many human wants, well qualifies them to judge as to the wisdom or otherwise of applying the principle over a wider area still. I am going to advocate that the whole nation shall co-operate in endowing old age. That for all old men and women over a certain age a provision of a few shillings a week out of national funds shall be made.

The subject of old age pensions has taken a quite remarkable hold on public opinion during the past twelve months. It has been written about in the newspapers and in the reviews; lectures have been given upon it; papers have been read before distinguished bodies, followed by very interesting discussions. The great friendly societies have considered the subject and are considering it still. A "National Providence League" has been formed, with Canon Blackley and other old and warm advocates of a universal insurance scheme amongst its members. A Parliamentary Committee, acting in conjunction with that League and with the Oddfellows and Foresters, has been trying to formulate a good working plan. Leading politicians have referred to the question in their speeches and one or two bills have been brought into the House of Commons containing proposals to create a limited measure of endowment. And lastly, but by no means leastly, the question has got on to the hustings at a general election. Many of us who have been candidates this year have named the subject in our election addresses, and have discussed it a good deal with our constituents.

My own experience in the matter may not be uninteresting. In October, 1891, I began to speak and write in my neighbourhood on the possibility and desirability of the nation resolving itself into a great benefit society for the purpose of making universal provision for old age. I suggested that out of the

OLD AGE PENSIONS.

taxes which all are made to pay, and which no one can evade, provision in the shape of 4s. or 5s. a week should be made for all, both men and women, who have reached the age of 65. I pointed out that they would have been paying into the National Treasury, out of which the pension was to come, for at least fifty years, and that it seemed no unreasonable thing that out of that fund, to which they had perforce been contributing for so long, help should be given to them in life's declining years, when their power to earn, through no fault of their own, failed them, but when their needs requiring to be supplied grew greater rather than less, and when nature craved earnestly for rest from their past incessant daily toil.

The publishing of this idea led to a good deal of correspondence in our local papers. It was written and spoken against by leading officials of the great friendly societies, but was approved of, I gathered, by a great many of their members, and especially of their poorer members. It was written against, too, by some active guardians and poor-law officials, and it was opposed by some very sensible men on the ground that it would tend to undermine personal thrift. But it was approved of in the main by a good many people of all classes, including some thoughtful and well-disposed rich men, who had nothing to gain and everything to lose, so far as the pocket is concerned, by the adoption of such a scheme. They thought that something more than has yet been rendered was due from wealth to the poor and needy. They expressed themselves as willing to help in delivering the poor from their present haunting fear of coming to the workhouse, and as willing to bear their share of the expense of a national pension scheme for the sake of the benefits which would follow. At first our local politicians rather scoffed at the idea as quite utopian; but when the general election came on I noticed that every county candidate in this neighbourhood, whether Liberal or Conservative, had something to say in favour of some national system of old age pensions as a substitute for the workhouse. And I have no doubt that each of them found, as I myself did, that of all the subjects on which they addressed the electors there was none that was so popular as this. A great many of us who have been returned to the present Parliament are returned pledged to do our best to promote the discussion, and, if possible, the passing of a well-considered scheme for pensioning from national resources the aged sons and daughters of toil, who may well be called the veterans of industry.

I have mentioned my own experience thus, because from what I have observed, it has been but a fair sample of what has been going on at the same time all through the country. I, for instance, do not know Mr. Charles Booth, of London. I had never even heard of him till he read

OLD AGE PENSIONS.

his remarkable paper in December, 1891, before the Royal Statistical Society, and soon after published his even more remarkable and valuable book on the Endowment of Old Age, a book which everyone interested in this subject ought to read, and which can be obtained of any bookseller for 6d. He, by his own independent thought, was led to set forth, but with much greater ability and with much fuller detail, the same idea which had occurred to me. Others in different parts of the country have been similarly thinking over the same problem, one setting forth one scheme for its solution and one another.

When a question which till quite recently had excited very little general interest is thus found fermenting in great numbers of minds at once all through the nation, the conclusion is irresistible that its claims for consideration are very weighty, and that the time for practical dealing with it is almost come. To Canon Blackley undoubtedly belongs the honour of first place amongst the enthusiasts who have done the pioneer work which has brought the question to its present position. For years his was as "the voice of one crying in the wilderness," with few to listen and fewer still to approve. A well-meaning but wildly-mistaken visionary he then appeared to many who heard him; but to a few his words were as good seeds falling into good ground, and now they are bringing forth abundant fruit. The scheme which he advocated was one for compulsory national universal insurance, and what he suggested was that in youth each person should make a payment of £10 to the State, in consideration of which the State should give sick pay in illness and a small weekly pension after the age of 70 was reached. This was the seed out of which the present public opinion has been developed. Many of us (including the writer of this paper) who heard the Canon expound his ideas years ago never lost the impression that his thoughtful and earnest words produced. From a small beginning—as we so often see in nature and in business—a great result has grown. The conscience of the nation has been awakened upon this subject. There is a general feeling now that the aged poor have been very hardly dealt with in the past. And the awakening, and the resolve to seek some better way for the future, have been enormously helped by the fact that the people have at last been enfranchised. The very classes who have suffered the cruel pinch of poverty in old age in the past have now power at the polls to make their feelings and their wishes known. What the poor of the nation wish they can now obtain if they are united, and if change of law can bring it. Anybody who knows anything of the feelings of the poor knows that hatred of the workhouse is one of the strongest feelings that they have. In noticing this, and thinking upon it, and contrasting it with the very different feelings towards those institutions

OLD AGE PENSIONS.

of the middle and upper classes from among whom our guardians are taken, I have come to the conclusion that the reason why the cottage people hate the workhouse is because they, many of them, see a reasonable fear of having to end their days there, while the dwellers in mansions, parsonages, farmhouses, and tradesmen's homes do not. This makes all the difference. Depend upon it, if you and I at all probably expected to finish our days in the workhouse, we should have the same hatred of these dismal semi-prison places that the poor have. Human nature is very much the same in all classes. Some time ago I was for one year a guardian in a country union, and I can truly say that I never came away from my periodic visits to the house without an aching heart; so utterly unnatural, hopeless, and humiliating were the conditions of life there. I vowed then that if ever I had the chance I would try to promote some more Christian mode of dealing with at least our aged poor. I rejoice with all my heart that the enfranchisement of the people has brought a better mode in sight and within our reach. The question now is what that better mode of dealing with old age shall be? The subject is a very large one indeed. How large the following figures will show :—

There are in England and Wales about 1,323,000 persons of sixty-five and upwards. In the United Kingdom there are about 1,815,000. Of these last, 817,000 are men and 998,000 women. How many of these old men and women have to come to the Poor Law for help now?

The highest authority we have on questions like this is Mr. Charles Booth, the gentleman we have already spoken of. He has devoted much time and study to Poor Law statistics, and to the whole range of subjects connected with Poor Law relief in all their aspects. When he read his paper before the Royal Statistical Society, to which we have already referred, he was of opinion that fully forty out of each 100 of those who have reached sixty-five would receive aid of some kind from the parish during the closing years of their lives.

Canon Blackley had inquiry made as to twenty-six country parishes which he knew, and he found that 42 per cent of the old people who died in them had had Poor Law relief after they had reached sixty-five.

Mr. Chamberlain has expressed the opinion, founded on his study of the best available figures, that of those of the working classes who attain to the age of sixty-five nearly half receive relief before they die.

Mr. Booth, however, now tells us that he sees reason to modify his figures. He now thinks thirty out of each 100 nearer than forty. When he made that first estimate of forty in each 100, he knew the number of persons over sixty-five in receipt of relief in each union on

OLD AGE PENSIONS.

one day, viz., the 1st of August, 1890, from a return called "Burt's Return," but he had to guess as best he could how many had to be added to account for those not in receipt of relief that day who yet would have it in the course of the year. No actual data were then available. Since then five unions have ascertained exactly the whole number of separate persons over sixty-five relieved in them through a year, and if these unions may be taken as fair examples of the whole nation their figures show that of our population over sixty-five about thirty in each 100 receive relief in a year. But of course the persons vary in different years, and the 30 per cent of one year would by the variations of individuals be brought up to more than 30 per cent of the whole number of the aged who have recourse to the Poor Law for help during life's closing years.

Taking, however, Mr. Booth's latest and lowest estimate, we have some 600,000 out of the total of 1,815,000 persons in the United Kingdom over sixty-five who will have to apply to the parish for help before they die.

It may be interesting to note here that of persons under sixty-five in our whole population only four in 100 receive relief in a year while of persons over sixty-five there are, as we have seen, about thirty to each 100. Another interesting fact is that of those of us who live to be twenty-five years of age about half will live to be sixty-five. Thus half of our adult population have a direct personal interest in the prospects of people over sixty-five; and a third of those who will survive to that age have before them at present the miserable prospect of being reduced before they die to crave a pauper's dole, or still worse, a place in the hated workhouse, while the number of those who by hard pinching will be able just to keep on without applying to the guardians will probably be nearly as many more.

Can this be right? Is this a fit end for great numbers of our workers to come to? Are these suitable conditions in which for them to spend their last years? To most of them life all through has been a hard struggle. They have found themselves, by no choice and through no fault of their own, in conditions in which saving has been very difficult if not impossible. It has required their utmost efforts to keep the wolf from the door as they have gone along; and then when age creeps upon them, and their strength fails, they find themselves left a burden to their families (who often can barely keep themselves), or else have to come upon the parish. The case of some of them is made the more pitiful by the fact that they have subscribed to clubs for years which have become bankrupt when they expected to have their help; others have saved a little and had it all swept away by sickness or misfortune; some had been better off, but change in the times, or incompetency on their part, or some calamity which they could not avoid, has left them penniless; while others

OLD AGE PENSIONS.

alas, by careless or bad living have reduced themselves down. But whatever the cause of their poverty—even if they have been themselves partly blamable for it—how pitiable their position, which for them has, now that they are old, become irreparable. No longer able to work and earn, and yet needing to live, who can but feel for and commiserate them? Who is there of us who does not know many of either sex in this unhappy position to-day for whom our hearts ache when we think of their hard lot? And when we remember the enormous and constantly-increasing wealth of this country—wealth which is increasing faster than the population—and reflect how that there is ample of all good things for everybody so that none need want if things were a little more equally shared, do we not see room for some great change in our present social arrangements, under which so much wealth and so much poverty exist side by side together? Many, too, of these who are found in want in old age belong to that great army of industry by which the wealth of this country has been built up and is sustained. How differently do we treat the veterans of industry from the veterans of the sword. For the latter there is a pension after so many years of service; for the former only the workhouse or the parish dole. And yet it is the workers who keep the fighting men, and who have to pay the bills which they incur. Surely these workers deserve at least equal treatment with the fighters. The latter, alas, are necessary in the present state of things, and we do not complain that they are treated too well; but why should the citizens of a country treat their servants better than themselves? Why should the servants have their so many shillings or pounds a week to retire upon after so many years of service, and the masters, who have to find the pensions for the servants, have no pension at all for themselves? We pay millions a year away now in pensions to the various classes of our public servants, many of whom have not been overdone with work and have been uncommonly well paid as they went along. We pay these millions out of the taxes, to which we all have to contribute. Yet hundreds of thousands of those who have had to pay taxes for fifty struggling years are left themselves to the tender mercies of the Poor Law when overtaken by old age and consequent poverty. That there must be some change made in our present arrangements is quite certain; but what shall it be? There is a general agreement of opinion that it is most highly desirable that every person should find himself or herself provided with an income of at least a few shillings per week when old age comes; but there is a very wide difference of opinion as to the wisest paths to pursue for the certain attainment of this desirable end.

We have sometimes wondered how our Government pension system originated. Probably it was in the desire of the ruling classes to make

OLD AGE PENSIONS.

themselves comfortable ; and they saw their opportunity to do it at the public expense, as they, the rulers, had the power over the nation's purse, and had also the monopoly of the official situations, which they could occupy themselves or fill with their friends, while saddling the expense of the salaries paid on to the public. Then, as it is pleasant to retire from active work when the years get on, but not pleasant to drop the salary, and as for shame they could hardly continue to draw the salary after they had left off doing the work, the happy compromise of a pension was thought of. Retire, but draw a retiring pension. Yes, that will do. So the pension system grew up, and spread from rank to rank through the public service. For those who have drawn the pensions, and who still draw them, it has been a capital idea. When the pension system was set up, those who drew the pensions belonged to the ruling classes. To-day the people have become masters. And now it is the servants who draw the pensions and the masters who pay them, but have none for themselves. This cannot continue ; but we, the present rulers of this nation, can retain and appropriate to ourselves anything that is good about the pension system, and two points in it are obviously good. One is that we should be able to withdraw our shoulders a little from the collar when old age comes upon us ; the other is that something should be coming to us to live upon when we ease off from full work. Cannot we by a wise system of old age pensions do something towards bringing these two good points within reach of all the inhabitants of the nation ? This is the thought we have in our mind ; and this is the thought which is fast taking hold of the public mind. All over the country, and in other countries too, thinkers are working at this problem—how can we most wisely secure to everyone at least a small retiring old age pension ?

To enumerate, much more to explain, all of the plans which have been suggested from different quarters would be an almost endless task, and an unprofitable one too, for we should find no readers. The principles underlying all these different methods will be found to be few, and mainly three.

I.—THERE ARE THE PURELY VOLUNTARY PLANS.

By paying into the Post-office now, for example, any person who desires it can secure a pension for himself or herself after a certain age is reached, guaranteed to them by Government.

The same object can also be secured, though without the guarantee, through many of the existing benefit societies. The largest of these bodies—like the Oddfellows and the Foresters—have recently been paying special attention to this branch of their work, and have framed tables of scales of payment, varying according to age and object aimed at, through which

OLD AGE PENSIONS.

corresponding benefits can be secured by insurers. In the past the experience of these societies has been that hardly any of their members have insured for old age annuities; but no doubt more will do so in the future now that public attention is being so much drawn to the subject, and now that special efforts are being made to encourage members to so insure.

All voluntary schemes have, however, this one, as it seems to us, fatal objection, that they are not likely to include more than a fraction of the population. Outside of them there will still remain a great mass of uninsured persons. Human nature being what it is, the foresight necessary to induce young people to insure for benefits uncertain and very remote is not likely to be found in the masses in our time or for long after. Then, again, these voluntary agencies cannot deal with the existing aged persons, or with those who, if not yet old, are still past middle life, except on quite impossible and prohibitory lines. All the voluntary schemes are good, very good indeed, as far as they go, and worthy of all commendation, but they do not near cover the whole of the ground, nor are they at all likely to do so till the whole state of society is quite different from what it is now. Voluntary schemes will not meet the case.

II.—WE HAVE THE STATE-AIDED PROPOSALS.

THE root idea in these is that, in order to encourage people to make provision for old age, the State shall add a certain sum to the amount subscribed for by the individual.

The proposals made by the Voluntary Parliamentary Committee, over which Mr. Chamberlain has presided, ran upon these lines. Briefly, this scheme proposes "That to the account of every person who when he is twenty-five shall have paid £5 into the pension fund there shall be added from State funds the sum of £15. The account so opened is then to be kept alive by an annual payment of £1 a year by the insurer for forty years, the £1 to be paid in such instalments as the depositor finds convenient, and it may be in arrear without loss of benefit, but it must at no time be more than £5 in arrear or all claim to benefit will be lost. To the insurer will then be guaranteed, if he lives to sixty-five, a pension of 5s. per week for the remainder of his life. If he dies before sixty-five, 5s. per week for the widow for twenty-six weeks, 2s. per week for each child till twelve years old (but not to exceed 12s. in all for the first twenty-six weeks and 8s. per week afterwards). If neither widow nor children are left, the original £5 to be returned to the depositors' representatives at his death." The scheme also provides for women, with a smaller scale of benefit ensured by a smaller payment.

This scheme, it will be noted, does not confine itself to providing a pension for old age, though it leaves it optional with the insurer to

OLD AGE PENSIONS.

pay less if he pleases and to forego the other benefits. If universally adopted forty years would have to run out before any person insuring at twenty-five would begin to receive an old age pension under this plan. We want some plan which will begin to work directly. To bridge over this interval in regard to those who are over twenty-five and under fifty at the time of starting the scheme, it is proposed that the desiring insurer must within three years procure as best he can a pension of not less than £6. 10s. a year (that is 2s. 6d. per week) and pay in a sum of from £4 to £10, according to his age, and the State will then double the annuity. A clause in the plan also aims to enlist the goodwill of employers in urging and helping those they employ to become insurers.

The weaknesses of the plan, we think, are—

That it will make demands on the State for money long before any extensive benefit will be received by insurers ;

That it does nothing for the present old people whom we have with us ;

And that it will not be at all likely to be made use of by near all of our youthful population.

We want a plan to include everybody. We want benefits to begin to the aged as soon as demands are made on the nation's purse. And we want the existing old people provided for.

All these wants are met by the proposal we have next to describe and consider.

III.—PAYMENT BY THE STATE OUT OF THE TAXES OF A FEW SHILLINGS PER WEEK TO EACH MAN AND WOMAN OVER SIXTY-FIVE.

THIS proposal, bold and staggering as at first sight it seems, has many obvious advantages.

It would *cover everybody*.

It would be *immediate in its operation*. Directly Parliament sanctioned such a plan, and made provision of the funds, the benefits of it would begin to be received by all who were over sixty-five. No words can tell what a weight would be lifted that day from off the shoulders and burdened hearts of hundreds of thousands of people in every village and town and city in our land. Then would the aged widow's heart indeed sing for joy, and the old man, worn with toil, and his old wife too, would feel as if the windows of heaven had been opened to pour down showers of blessing upon them. The dread fear of the workhouse as a last home would, to their infinite relief, be clean taken away from all who are poor. They would see instead the pleasant prospect of being able to spend their closing years among their own people and in the old scenes. If able to do a little work to increase their incomes, they would be able to do it without forfeiting their pensions. They would not live in fear of becoming a burden to

OLD AGE PENSIONS.

their children ; and if they had saved a little they would not be compelled, as now, to spend it before they could have help. If they had insured for a pension in some benefit society they would be able, with the addition of such income to their pension from the nation, to spend their closing years in ease and comfort. The sight of old people would be a pleasure to us then instead of as so often now a pain and a shame. Is there any expenditure the nation could make which would bring so ample, so immediate, and so blessed a return? And the blessing of it would be right before the eyes of all. Every family in the land, or nearly so, would receive immediate help. Poor people known to each one of us, and pitied by us often, would be seen gladdened and comforted, so that it would be quite a pleasure to meet them, and to mark the happy improvement in their circumstances and spirits.

We have recently decided in Parliament to make the teaching of our children a national concern. Is it not fit that our next step should be to make a national provision for the aged?

This plan which we are advocating would have the further recommendation of being *perfectly simple*. A proper certificate of age and of birthplace would be all that would be required by the recipient, and simple and inexpensive machinery would suffice for the paying. In rural districts, when we get parish councils established, the distribution might be managed almost gratuitously. A great deal of the money raised for the poor now never reaches the poor at all. Here they would get nearly the whole of it.

Further, it would be ensured that *everybody should pay* towards the pension which he or she received. No one can by any contrivance avoid paying taxes. Our taxes are so laid on that they infallibly catch everybody. Besides the direct taxes, which catch certain classes particularly and chiefly, we have our indirect taxes. Every pipe of tobacco smoked, every pint of beer drunk at a public-house or bought of a brewer, every glass of wine or spirits consumed, every cup of coffee or tea taken in our homes or elsewhere, is tolled by the tax gatherer. Every day of our lives we all pay taxes. Thus we should be paid our pensions out of a fund to which we all contribute whether we will or whether we will not. Taxes, of course, are not paid without effort ; but is there any other means by which every man's contribution could be so certainly secured and so easily paid? We do not believe that there is.

This plan would have the further advantage that *the rich would pay more than the poor*. We aim so to impose our taxes as that payment of taxes shall be in some measure proportioned to ability to pay. In such a system of old age pensions as we advocate wealth would be compelled to help poverty, and is it not fit that it should do so more than it does now? How much the best end of things

OLD AGE PENSIONS.

the rich have at present. They have the "treasure," they have the "leisure," they have the "pleasure," while the poor have want, and hardship, and toil, with the workhouse at the end perhaps. We are all brethren, children of one Father, yet how frightfully unequal our portions are. And many who are rich are so by no desert of their own, but by inheritance, or by some lucky chance. Others are rich because they are stronger and cleverer than their fellows, and in the terrible competition of life they have been able to shoulder their way through the throng, and to drive the weak to the wall or to trample them under their feet. But it is no virtue to be strong or clever—it is a gift from the Creator. On the other hand, to be weak in mind or body and not able to win prizes in life's battles is not a fault but a great misfortune. All through the fighting days of life the rich and the strong have so much the best of it that they cannot fairly grudge being asked to spare something from their plenty to ease at least the old age of their less-favoured brethren. As the moral sense of the nation grows we feel sure that there will be more pity for the weak, and more help expected for them from the wealth of those who are rich. There ought to be, and we believe there will be yet, more recognition of the heaven-taught truth of the brotherhood of man. But in recognising this by law, and compelling the recognition of it from those who do not voluntarily admit it, we must proceed by careful steps. Careful, on the one hand, not to discourage self-help and self-reliance on the part of any, and careful, on the other hand, not to create a sense of insecurity in the owners of property, which would discourage them in the winning and in the lawful saving of money. We have, as we have said, made brothers of the nation in regard to the education of our children. That step is not likely to be retraced. Let us take another step along the same path, and be brothers in providing for the aged.

Age is what no man can help. It is no sin whatever to be old. We can shorten our lives by bad living, but by no possibility can we make the sands of time run out faster than they do under the appointment of the Creator. No man, for the sake even of an old age pension, *could* make himself sixty-five a day sooner than if no pension awaited him then. And as age is no sin, and its coming inevitable, so are the unpleasant accompaniments which come with it inevitable too. Loss of strength, increased tenderness, need of more care and comfort, unfitness for daily toil, all these infirmities come with old age, and make the subjects of them worthy of pity or at least of sympathetic and kindly treatment. Tenderness and respect towards age are taught by nature herself, and have been acknowledged as due and practised to some extent at least in all times and countries. The providing of almshouses for the aged has been a favourite use of wealth devoted to charitable purposes by

OLD AGE PENSIONS.

those who have wished to help their fellow creatures with their money. There are few uses to which wealth can be put which are more entirely unobjectionable. To endow schools for the young and almshouses for the aged have been the lines on which well-considered charity has for centuries run. Can we do better than follow these two lines as a nation? In trying to equalise things in some small degree, and in the least objectionable way, we cannot, we are persuaded, do better than to make the wealth of the nation help the poverty of the nation in the form of assisting to provide endowment for all in old age. On the whole, it does not seem unfair that the rich should pay more than the poor to ensure that none suffer want in the feeble days which come when the sands of life are getting nearly run out. Our belief is that with such a plan as we have sketched out in operation, the increase of contentment among the masses would be so great that the property of the rich would rest upon a much surer foundation than it does now. While with the strange uncertainties which mark our lot here, it might be that not a few who once were rich would find that they had been helping to create a fund on which at the last they themselves would be glad to lean.

Patriotism, too, would be advanced by what we propose. Towards the country which pensioned him a man would naturally have kinder feelings than towards the country which leaves him to die in the workhouse. At present, too often there is but little to attach a poor man to his country. Its tax gatherers take money out of his pocket for objects not very perceptible as being of any particular advantage to him; its laws restrict his liberty; if he errs, they punish him; and nothing tangible does he seem to receive in return. But a weekly pension in old age would be a very perceptible and a thrice-blessed boon to him. It would be a welcome return for all his labour in the country of his birth. He would have much greater reason then to love his fatherland.

Oh, but say some, such a pension coming to a man without his having specially subscribed for it would demoralise him, and discourage thrift on his part. Do not believe it. Are the thousands now upon our pension list demoralised? Is thrift discouraged in them by the receipt of their pensions? Do we encourage thrift now when we make the thrifty support the thriftless? When the thrifty have to pay, yet receive nothing back? When destitution is the passport to relief? When the man who has been provident and belongs to a club gets no help or less help in sickness while he is made to pay to help the improvident? No. Our belief is that the certainty that a few shillings per week would be coming in in the latter years of life would be a very strong inducement to try to save to supplement the pension, so that the evening of life might be passed in comparative ease and comfort.

OLD AGE PENSIONS.

But what about the expense? Here, no doubt, is the greatest difficulty. Yet in one sense it is no difficulty at all. It would, of course, take an enormous sum to provide 4s. or 5s. per week for nearly two millions of people. Four shillings per week is £10 a year, 5s. is £13. Two million times either of these sums is indeed an enormous amount. But everybody will admit that it would be a good thing that all should be provided with a weekly income if they obtained it from savings or by direct personal insurance with a benefit society, for instance; but it would cost, remember, exactly the same to pay out weekly pensions to two millions of people through a benefit society as it would to pay them through the State. And the money would have had to be paid in, too, before it was paid out, just the same. The cost would be alike in both cases. The chief difference would be that the cost would not come exactly out of the same pockets, though some of it, on our plan, would come out of the pockets of each who received.

Oh, but some will say, if you begin this plan, soon the people will want to increase the weekly pay, and to begin to receive it earlier. Well, that will be for them to decide. And the fact that the money to pay with has got to come out of the people's pockets in the shape of increased taxation before it can be paid over will be a very wholesome check. We believe the people may with perfect safety be trusted in the matter. We have great confidence in the good sense and the spirit of fairness in the English people. We do not fear that they will wish to carry a provision of the kind too far. As we have said before, in our view one of the merits of the plan is that it will do a little to make wealth help poverty, and so to redress the present far too great inequality between the rich and the poor. If the advancing spirit of the age in time to come sees fit to go a little further in this direction, we should not think it cause for any lamentation. A nation a brotherhood is the highest ideal of a nation. Co-operation, as developed by the great society in whose "Annual" these pages appear, is one step, and a good long one, towards the attainment of that ideal. Free education is another step; and national old age pensions would be yet another.

Of course, no such system can be adopted without the consent of the nation. Our belief is that the more the question is discussed the better the people will like the look of the idea. And for the sake of the enormous and immediate benefits to be obtained, we believe that they will be found willing to submit to the necessary taxation. The division of Suffolk for which I have been elected is, so far as I can judge, willing to accept it now.

There are other sources of income, too, which might be looked to as well as taxes if the nation decides to carry into effect the endowment of old age.

OLD AGE PENSIONS.

The country owns a large revenue from tithes, which it will, we all expect, change the present use of at no distant day. Then we have great numbers of ancient almshouses which, probably with their revenues, might be incorporated into a national system. Then we pay several millions a year under our existing pension system. If we adopted a system of pensioning all, there would look to be no reason for special pensions for certain classes. All might be made, in this respect, to fare alike. If this were agreed upon, as the present pensioners died off the amounts of their pensions would fall in (unless it was found necessary to increase the salaries of their successors). Here would be another contribution. Then, of course, we should save the expense of the present relief given to the aged poor under the existing Poor Law, an expense estimated to be between three and four millions of pounds a year. Our total expenditure on Poor Law relief now is just under £9,000,000. Probably nearly half of this might ultimately be saved if all over sixty-five years of age were otherwise provided for.

No doubt a Chancellor of the Exchequer would feel very much staggered to be ordered to provide such an amount as would be required. Four shillings per week is £10 a year, five shillings is £13. Two million £10 comes to £20,000,000, two million £13 to £26,000,000. So far as our judgment goes, we should start with the smaller sum. We should save four out of the twenty millions by getting our aged paupers off the present Poor Law. That would leave £16,000,000 to raise by taxation. This would mean an addition of nearly one-fifth to our present taxes. The 6d. income tax would have to be 8d. perhaps, and more on large incomes on a graduated scale. The taxes on tea, tobacco, and strong drink would have to be raised. I, for one, should be glad to pay the increase for the sake of the blessed result, and so, I think, would most of the people. Nearly half the revenue we derive from taxation comes from the consumable articles we have just mentioned. This part of our taxation is of course largely and principally paid by the poor. If they would be willing to have these taxes raised, as we believe when they have looked all round this question that they would, surely the richer part of the community could bear its share of the increase.

With the money derived in this way there would be a certain satisfaction in thinking that every poor, reckless, drunken sot, while making a beast and a fool of himself, was at least helping to swell the pension fund as well as lessening his own chance of ever partaking of it. He would, perforce, be doing some good to honest men and women in indulging in his lamentable and self-destructive vice.

The fact that all would pay and that all would be entitled to receive would dissociate the pension from any pauperising idea. Each person would feel that he or she came by it honourably, and

OLD AGE PENSIONS.

at the same time the amount would not be large enough to discourage anyone from trying to save for themselves. Probably the moral tendencies of a national scheme such as we have been writing of will be scanned more carefully than its money cost. If its tendencies would be adverse to personal thrift, if demoralisation of any kind would be likely to follow, such a scheme will be rightly condemned. To us it appears that all the tendencies of the scheme would be thoroughly healthful. It would encourage all the virtues and discourage none.

Unless we are greatly mistaken, we shall see as the years run on, and as the spirit of Christianity leavens society more and more, a steady development of the desire to use the organisation of the nation for more and more purposes. For defence, in all ages the nation has been the unit; so has it, too, for the administration of justice and for the preservation of order. We have added in England the distribution of letters and small parcels through the Post-office; the relief of the destitute poor and of lunatics; the education of the young; the prevention and extinction of contagious diseases both among human beings and cattle, &c., &c.; and each decade sees some further addition made to the area of Government action. This is as it should be. We are a democracy now. The Government is the people themselves, acting through their chosen representatives. Whatever can be done most effectually and most economically nationally, ought to be nationally done. I respectfully submit that a moderate endowment of old age is one of the things which can be done better by the nation than by any smaller organisation.

I hope I have at least written an article which can be read, and which will help to set its readers thinking. So great a question as this needs much thinking and discussion before the best decision can be arrived at. I am glad to have had this opportunity of aiding in its discussion, and that amongst so thoughtful and intelligent a class as the readers of the "Co-operative Societies' Annual." The views I have set forth are views which have impressed themselves strongly on my own mind, and which have found wide acceptance among the working men of Suffolk. I hope they will now gain a still wider acceptance.

Germany has already adopted a national old age insurance system, based upon a threefold payment. The employer pays a third, the workman pays a third, and the State adds a third. The pensions do not begin till seventy, and the amounts insured for per week are very small, being principally from 2s. to 3s. only. We are sure that the English people will never accept a system under which direct payments have to be made out of wages. In Germany the system is said not to be popular and not to work well. We shall have to improve upon Germany's plan.

THE HOSIERY TRADE.

BY ANTHONY MUNDELLA.

THE hosiery trade produces to-day many articles which are not "hose," and, in fact, has always done so. The real entity of the trade is revealed in its old name of "frame-work knitting," and all its hundreds of varied products, whether caps, jackets, gloves, shirts, or hose, are distinguished from all other fabrics by being knitted. The "hosiery" manufacture is, in fact, the production of "knitted fabrics."

Knitting, as contrasted with weaving and other industries, is one of the most modern of the manufacturing arts. The process of weaving, which is the interlacing of two sets of threads so as to form a solid and inflexible fabric, is in a simple form known to the most primitive savage, and is employed for many purposes, from the weaving of a hut or boat of twigs to the making of a piece of the finest cloth; but the subtle ingenuity by which a single thread is made to serve the purpose of both warp and weft, by simply looping and interlacing it upon itself so that the fabric is both solid and elastic, marks a great advance, and it is not surprising that, whilst weaving is practised by the untutored savage and in the most remote antiquity, the art of knitting should have apparently been only discovered a few hundred years ago.

It has, indeed, been conjectured that traces of knitting may be found in earlier records confounded with weaving, and there is interest in the suggestion that the web which the faithful Penelope of classic history *wove* by day and undid each night was really knitted, for a woven fabric would take longer to unweave than to weave, and the yarn would be destroyed, whilst a knitted fabric would be unraveled in a few moments, leaving the yarn uninjured. And again, it has been suggested that the "coat" which Jesus wore, "without seam, *woven* from the top throughout," and for which lots were cast by the soldiers on the day of crucifixion, was really a knitted fabric, which would explain why to divide it would have been to destroy it.

But these are mere surmises, and the first authentic account we have of hand knitting is the use of knitted caps in the fifteenth century. These had been quite common in England for nearly a century before the natural desire for some substitute for the clumsy hose then worn, cut out of unelastic woven cloth and seamed, led to the difficulty of knitting a heel being mastered, and to the

THE HOSIERY TRADE.

appearance of knitted hose. Very shortly after 1540 in every home nimble fingers were knitting hose for the family and for sale. It is at this point, 350 years ago, that the "hosiery" trade first appears, and thus amongst the textile trades as they exist to-day in their modern developments it is one of the oldest. Its history is full of interest, carrying the student of the industry as it exists to-day back through unbroken traditions to the birth of the modern manufacturing system.

Hand knitting appears to be a simple process as one watches a busy housewife automatically plying her clicking knitting pins, but a moment's observation reveals the variety of the movements necessary to be made, and even in these great days of mechanical genius he would be a bold man who would attempt to invent a machine to perform them. But in the days of good Queen Bess, when few except the very simplest mechanical contrivances were known, a young country clergyman essayed the task. This was the Rev. William Lee. He was born at Calverton, in Nottinghamshire, and having taken his M.A. degree at St. John's College, Cambridge, became the incumbent of his native parish. Many stories have been told, and at least one famous picture painted surrounding the invention with a halo of romance; but it is not probable that to either happy chance, or unhappy love, or mean revenge, does the knitting machine owe its origin. The obvious facts are that Lee was young and energetic; he was the native of a district famous for its clever workers in wood and iron; he had received a good education, he had a small independence and the leisure of a country rector, and, therefore, he was well equipped to undertake the long and costly labour of devising an intricate machine which promised great wealth to the successful inventor. Poor Lee solved the problem, but did not live long enough to reap the material reward. The machine, which he completed in 1589, reproduced exactly the fabric made by hand knitting. He did not attempt to make a seamless stocking, but made a flat web of the proper shape, varying in its width from calf to ankle, so that when the edges were sewn together a properly shaped stocking appeared. The machine—a contrivance of wheels and levers—required eleven distinct movements to be made by the hands and feet of the operator, but it achieved the same result as the movements of the human hand. To obtain this, each of the loops which a hand knitter gathers side by side on one or more pins, he placed upon the point of a separate needle fixed in the frame, hence the name "frame-work knitting." Many years afterwards this machine was described as "by the judgment of all beholders—far excelling in ingenuity, curiosity, and subtilty—all other frames or instruments of manufacture in use in any known part of the world."

THE HOSIERY TRADE.

Lee worked his frame at Woodborough, the next parish to Calverton, for two years, proving its value, and then, relinquishing his clerical title and occupation, and just when England was rejoicing in the defeat of the Spanish Armada, he took it to London to obtain a patent. It was still many years before the creation of patents in our modern sense was provided for, and the inventor of those days was dependent on court patronage and the monarch's favour to obtain a protection and monopoly in his invention. Queen Elizabeth inspected the machine, but with a confused reasoning for which she need not be blamed argued that it was too valuable to be monopolised by a single individual, and so refused all protection whatever to the inventor. She was moved to this decision by the fact that he could only produce a coarse woollen stocking, for Lee's first machine was almost entirely of wood. So he set to work to make a finer one, in which he had to use iron, and knitted in 1598 the first pair of machine-made silk stockings, which he presented to the queen, but her determination was not changed by the gift.

In a few years Elizabeth was succeeded by King James, but he also refused to give a patent or other encouragement to the inventor. Lee built several new machines, and did what business he could, until Henry IV., the enlightened King of France, who was introducing the silk and other manufactures into his country, invited Lee to Paris, and induced him to take all his nine frames and set them up in Rouen. The great invention was apparently lost to England, and the inventor about to reap the reward of all his labours, when the king was assassinated, and his enemies, who were also the enemies of commercial progress and of English protestantism, came into power, and Lee, worn out with twenty-five years of deferred hope, died, and was buried in Paris in 1610.

Lee's younger brother returned to England, and found the world there more prepared to receive the new industry. He sold the old frames in London, and returned to Nottingham and constructed others both better and cheaper, and from about 1620 frame-work knitting was established as a regular industry in Nottingham and London. In 1640 the first frame was set up in Hinckley by a man named Iliff, and in 1670 a man named Allsopp erected the first in the town of Leicester. London was long the centre of the trade, but it was now entirely died out there, while in Nottingham, Hinckley, and Leicester it has grown and flourished, and they are the chief seats of the hosiery industry to-day.

While politicians were occupied with battles between Cavaliers and Roundheads, the frame-work knitting industry was gradually growing, and at the time the Civil War was brought to a close by the execution of King Charles in 1649, there were about 400 frames in London and 350 in the Midlands. These were engaged

THE HOSIERY TRADE.

not only in making stockings but also in the manufacture of piece goods in all the brilliant colours then fashionable, to be cut up for waistcoats and other attire.

About this time there began to appear in the trade the first division of capital and labour, in the relations and contests of which the hosiery industry was to play an almost unique part during the two following centuries. From the moment that Lee built his second frame there had necessarily been frame-work knitters owning several frames and employing journeymen, but the frame owner was also a workman. Now, as the trade grew the class of master hosiers or merchants began to appear—capitalists, who could buy goods made by the frame-work knitters in their rural cottages and distribute them far and wide, not only throughout England, but to traders in foreign parts; in fact, by 1656 it is recorded that “the vent of frame-work knitted goods is now more foreign than domestic,” and not only goods but frames began to be exported.

Most of the principal trades in London were then organised and governed by livery companies, the successors of the trade guilds of earlier times, and the frame-work knitters of London, feeling the inconvenience of competition by inferior workmanship, the influx of outside labour into a trade easily learnt, the reduction of prices by the undue employment of apprentices, and the exportation of frames, thought they might restrict these and other evils if they could obtain a charter incorporating themselves in a company, with power to brand these evils as illegal offences, and punish them accordingly. Application was made to the Lord Protector, Oliver Cromwell, and he granted the required charter in 1657, but the Lord Protector died the following year, and in a few months Charles II. was on the throne, and all the acts of Cromwell revoked.

The application had to be made afresh to the new monarch, and in 1663 he granted another charter, and the company commenced operations. Unfortunately the new organisation was far too much a metropolitan affair. The management was placed entirely in the hands of London men. They had power to elect their friends, who were not in the trade, as freemen, and as all their penal powers took the form of levying fines, which went into the coffers of this close corporation, their efforts were not altogether above suspicion. They did little to directly benefit the trade, but showed considerable energy in all matters of levying fines and prosecuting offenders, and spending the proceeds in ostentatious display and extravagance, for which the older companies were already notorious. Frame owners who wished to avoid their restrictions and exactions fled with their machines to Ireland and to the Continent, while many more went down to the Midlands, and, in the midst of sympathetic frame-work knitters, defied the authority of the London corporation. In this way the

THE HOSIERY TRADE.

principal effect of the company's action was to scatter the trade, to plant its first beginnings in France, Spain, Italy, Ireland, and the Netherlands, and to make Nottinghamshire instead of London the great centre of the manufacturing industry. The evils against which they contended, and which they might have checked if a little more moral respect had accompanied their penal powers, still existed; but the trade was rapidly expanding, and, under the influence of the brighter costumes and lavish display of the Restoration period, was prospering wondrously.

The period of one hundred years, from 1640 to 1740—in which, from our school history books, the country would appear to be rent by civil war and commotion—was really the golden age of the frame-work knitters, and probably of other industries. The number of frames in the country increased from 750 at the beginning of the period to 8,000 towards the end, and all these latter were fully engaged. The frame-work knitters earned in Nottinghamshire from 2s. 6d. to 4s. per day. Meat was only 1½d. per lb., bread 4¾d. the quartern loaf. The charge for board, lodging, and washing of a journeyman for a week did not much exceed what he could earn in a day. They had their gardens or other civilising occupations for their leisure time, and by working only five or six hours a day, or only three or four full days a week, lived in comfort and happiness.

Thus through several generations the trade steadily grew with its increasing prosperity, and much enterprise was exhibited in new designs and workmanship. But outside the narrow circle of manufacturing industry great events were happening, fraught with a century of disaster to the humble frame workers and their happy village life. With the importation of foreign rulers in William III. and afterwards the Brunswick family, it had become the supposed duty of England to maintain the "balance of power" in Europe, and in other ways enter upon exhausting and unremunerative enterprises. The National Debt made its appearance, and the Government encouraged a system of speculation in which the South Sea Bubble of 1720 marks an epoch. Various influences, which we need not particularise in this article, were impoverishing and enslaving the agricultural community, and the poor law was being directed by shortsighted and selfish classes, to the aggravation rather than the amelioration of their distress. The parish authorities found themselves with children on their hands, and found that a cheaper way than maintaining them was to pay a small premium and bind them apprentice to a frame-work knitter. A child of ten could work a frame, and all through the eighteenth century there was an increasing supply of child labour offering to all who would accept it. When these children grew up their demand for frames led people who had no connection with the trade to invest their money in frames

THE HOSIERY TRADE.

and let them out for hire, taking advantage of the fact that in the early years of the century a system had made its appearance of frames being hired out to workers by the merchant hosiers. To the hirer of an "outside" frame it was a doubtful bargain, as it carried with it no introduction for obtaining orders or promise of work; but the discarded parish apprentice had no option, whilst, on the other hand, to the owner it was an excellent investment, as the ownership of a frame carried no liabilities, not even to the extent of finding houseroom for it. The genuine traders were thus thrown into the anomalous position of having thrust amongst them by extraneous causes an increase of labour and of machinery in ever growing superfluity.

In the early years of the eighteenth century only the first small indication of these troubles was appearing, but signs of other changes in the trade were apparent. The trouble began in London, where the more fancy articles in colours were made. The mainstay of the London hosiers was the fancy trade, to supply which, in those days of slow transit and communication, necessitated the machines being close at hand to execute special orders; but plain goods, which could be made wholesale, were manufactured in the Midlands, where the lower cost of living and the local long-staple wool of the famous Sherwood Forest breed of sheep, which has been allowed to die out, gave the country maker an advantage. Soon after the century opened, gay colours and fancy patterns were gradually disused, and improved means of communication deprived London makers of their last advantage they possessed. Notwithstanding this shrinkage in their trade, or perhaps because of it, the employment of child labour and other evils became a burden in London, and in 1710 a riot took place there, and one hundred frames belonging to masters who employed too many apprentices were broken. These strong measures checked the evil for a time, but no doubt assisted in the movement of frames from London to the country which other influences were tending to bring about.

The organisation of the trade early in the eighteenth century was pretty much as follows:—In Nottingham and Leicester there were forty or fifty merchant hosiers, who were the principal dealers with the general public, sending out their goods to London and all over the country on the backs of pack horses, and obtaining orders. The goods were made principally to their order by about 8,000 frame work knitters living and working in the villages, either as the owners of a single frame or as journeymen living and working in the cottage of the owner of two or three frames. These fifty merchants also had some hundreds of frames of their own, which were hired out to men who thus became their workmen, indirectly indeed, but still more closely in their employ than the independent

THE HOSIERY TRADE.

frame owners. Outside these two classes there were, no doubt, a few men who had no frames of their own, who could neither succeed in hiring one from the merchants or become engaged as a journeyman by one of the rural frame-work knitters, but found refuge in hiring frames owned by some outsider and taking their chance of obtaining orders for work.

The London company had never included the larger part of the manufacturers or merchants, and as the centre of gravity of the trade moved from London to Nottingham the company became a clique without authority or respect. But as the merchants gradually assumed more and more the character of employers of the thousands of scattered frame owners, and the latter began to feel the pressure of the yoke, they cast about for means of protecting themselves, not only against the inevitable tendency towards "more work and less pay," which the system of employer and employed develops, but against the increase of child labour and the competition of cheap and "spurious" goods against honest workmanship. The form of such protection already existed in the dormant regulations of the company, and on an appeal to them the London clique were not at all loath to attempt to exert their authority against the offending employers of Nottingham, not so much, perhaps, from any strong sympathy with the frame-work knitters of the county as with an eye to the possible exaction of heavy fines to fill once more their empty coffers. In 1728, supported by the rural frame-work knitters and their sympathisers the county squires, the company attacked two Nottingham firms. In the legal proceedings which followed it was, however, contended that the City company had never executed authority more than twenty miles outside London, and, after prolonged litigation, they lost their case. For five-and-twenty years actions in the courts and in Parliament were renewed in various forms, but the merchants and manufacturers of Nottingham successfully resisted all efforts, and the frame-work knitters found that the London company was a broken reed.

This futile and prolonged agitation was not only of no avail, but the evils grew. The turning point was reached about 1750. Up to this time, despite the appearance of bad signs in the organisation and methods of the trade and a steady increase in machinery (from 8,000 frames in 1725 to nearly 12,000 in 1750), it was well occupied. Full work for all, which had been the normal condition of the trade for a century past, was still maintained. But now bread began to be dear, and other conditions of life harder. The rate of pay for making goods was also cut down, and it was only by continuous labour that the frame-work knitter could obtain the same weekly sum which he had obtained by slight exertions for many years. The trade was not in a position to receive a vastly increased production

THE HOSIERY TRADE.

by a general increase in the hours of labour, and most of the men had to put up with less pay for the old amount of work, and no chance of getting the old pay by more work. The capitalist merchant employer, the growth of quite recent times, had become the controlling power in the trade. By giving work or withholding it he was able to fix the terms of employment, and thus transfer to his own pocket an ever-increasing share of the profit of the trade. In 1765 the rector of Calverton inscribed in the parish register—"The stocking manufacture very bad last year and this. Scarce half work to be got or half bellies to be filled. The Lord have mercy on the poor." The worthy rector was premature in his lament; this was only the first pinch of the century of calamity which was to follow a previous hundred years of prosperity.

Steadily the conditions became harder, the capitalist acquired more frames, and much of the work was done by parish apprentices, both boys and girls, and the remuneration of workers steadily decreased. For nearly fifty years they had looked to the authority of the London company, hoping to obtain a protector there; but all hope in that direction was destroyed, and the distressed frame-work knitters began to discuss the possibility of combination and action on their own account, and in 1776 the first organisation of workers only, the parent of modern trade unions, was formed. It is worth noting that in the same year Adam Smith's great book was published, which marks even a more important epoch in the transition from the old order to the new. This new union was but a poor effort, looked at from the point of view of later developments, but from its very novelty it made a great stir at the time. Its energies were directed towards securing the aid of Parliament, and it obtained the friendship of the successful candidate at the next election. In 1778 a petition was presented to Parliament and a committee appointed to hear the complaints of the petitioners. Evidence was given of the low wages and long hours which had fallen upon the trade during the previous twenty years, and protests made against the growing system of merchants owning machines and hiring them out, and refusing work to independent frame owners; but a motion for leave to bring in a bill to fix and regulate pay and charges was refused by fifty-two votes to twenty-seven. There was intense disappointment in the Midlands, but the frame-work knitters did not lose hope, and the following year the bill was introduced. The large employers became alarmed, petitioned Parliament not to pass the measure, and obtained its postponement till they could be heard against it. When the committee sat the principal witness for the employers admitted that it was not uncommon for a master hosier to have more frames than he could fully employ in order to hire them out really for the sake of the rent. Evidence was given

THE HOSIERY TRADE.

that men were subject to deductions for rent, standing room, needles, fire, candles, preparing the yarn before work, and seaming the goods after they came off the frames, and that these charges, except the two latter, were fixed in amount, and were payable whether the quantity of work made was small or large, whilst the men were only paid by piece for whatever work they made. A new frame cost about £25, but they could be bought for £6 or £7 and the rent of 9d. to 1s. 6d. per week and charges of another 1s. gave a return to the frame owner on this outlay, which was a much more profitable investment than manufacturing and selling hosiery. Of course such cases were not the general rule, but the point was put that if such an extraordinary method were allowed to grow into a system it would be fraught with obvious evils. It was clear that the temptation would be to increase machinery so long as it was possible to find a minimum amount of work for each one, just enough, in fact, to induce a man to hire a frame to keep him struggling on in hope, working half time or less for small profit, or perhaps no profit to himself, but paying this magnificent return of nearly 100 per cent on the owner's investment.

The manufacturers' objection to the bill was that it would tend to drive the manufacture of hosiery to France, where they said "workmen were contented with low wages." Whether the working classes of France were "contented" or not, the events of the next few years were to declare in letters of blood and fire, but the future was hidden from the contented English Parliament of 1779, and the bill was thrown out by a majority of fifty-two to eighteen.

The final failure of the efforts of some years was the signal for stronger measures on the part of the frame-work knitters. A great assemblage took place in Nottingham of the members of the union, and some hundreds of frames were broken to pieces and thrown into the streets. This induced the manufacturers to issue a declaration offering, if their property was spared, to remove every oppression and bring all employers up to a fair price. Peace was restored, and in a short time a general agreement was come to, fixing a scale of payments for making various classes of work, and, whilst sanctioning the system of hiring frames, limiting the charges. This scale of payments and the deductions permissible was accepted by all parties, and was maintained for more than twenty years, being the standard rate well into the present century. This was no small triumph for the infant union.

The hundred years from 1700 to 1800 which we have thus reviewed had not been marked only by these changes relating to the internal organisation of the trade. There were also changes in the work produced and important developments in the machinery. Perhaps the one of greatest import to the world at large was the birth of the machine-made lace trade. This was brought about by an adaptation

THE HOSIERY TRADE.

of Lee's hosiery frame. An important branch of the hosiery trade of those days was the making of the knitted gloves and mits, so dearly loved by our female ancestors before kid gloves were obtainable, and which were made on Lee's stocking frame. About 1700 the Spaniards began sending to England mits of open work which were much admired, and out of a modification of Lee's frame designed to make similar goods, a fabric entirely of open work was made in 1764, and from this little adaptation of the old stocking frame the beautiful and delicate machinery of the lace trade has grown.

The great future before the "point net" frame was not dreamt of in the hosiery trade of 1760. The invention was in itself a very minor matter, and rendered still more so by the fact that the trade in gloves and mits was beginning to decline and soon afterwards passed into the stage in which it still lingers. But this small invention, devised to produce a novelty, is typical of many scores of others which were made during the century. These novelties often had a run for years, large fortunes being made by means of one or another of them, and the fortunate frame-work knitters employed in making them receiving good remuneration. Amongst those worth noting was the introduction of "fleecy" hosiery about 1780, which was first made by laying lamb's wool along the needles and then working it into a fabric. "Fleecy" still exists, though now made by a different method. In the latter part of the century "plated" goods, that is to say a double fabric consisting of a cotton web overlaid with another of silk, were a great success; but an attempt to make a velvet pile web by a somewhat similar process, the silk loops being cut through afterwards, was a failure, as the pile drew out. It must not be forgotten that "hosiery" was still almost entirely made for outside wear and not as undergarments, and the main endeavours of inventors were directed towards pleasing the eye by ornamental novelties. Amongst other important devices there were some for knotting the loops and others for making them slack. Tricks of this kind played with the fabric, however successful they might be in giving a fancy and attractive appearance to the goods, destroyed its durability, and to this fact an invention in 1775 was due, by which a warp, as used in the weaving loom, was added to the hosiery frame in order that the warp threads might give the necessary foundation to a fabric emasculated by slackness in loops and knots. This combination was a failure for stockings and such goods, for the rigid warp thread destroyed the elasticity of the knitted fabric, which is its most valuable characteristic. The plan itself, however, survived and led to the second important step in the development of the hosiery frame into the lace machine.

But the great invention of the century is connected with the name of Jedidiah Strutt, second only to Mr. Lee amongst the great names in the history of the hosiery trade, and this was a device for making

THE HOSIERY TRADE.

a ribbed fabric. The idea of making ribbed stockings had occurred early in the century and they had proved very popular, not only the pleasing appearance of the fabric but the additional elasticity and therefore greater comfort and closer fit being their great attraction. But they could only be made by the slow and laborious process of removing innumerable loops by hand from one needle to another between the movements of the frame.

For fifty years the ingenuity of the mechanics in the trade was bent upon devising some adaptation of the frame by which the ribs should be made automatically without delaying the work, but it was reserved for an outsider to accomplish the feat. Mr. Strutt was a gentleman of good education and great mechanical ingenuity. He employed his leisure with mechanical devices, and applied them in several ingenious ways upon his farm. His marriage with the sister of a Derby hosier brought him in contact with the hosiery industry, and directed his attention to the problem in mechanics which had so long baffled all the experts in the trade. After three years he succeeded in solving it, and in 1758 patented a machine which accomplished all that was desired. This was the first patent granted for hosiery machinery.

Instead of tinkering with Lee's machine as others had tried to do, he invented what was practically a new one to be attached to it. When he was assured of its success he gave up his farm, entered the hosiery trade in partnership with his brother-in-law, and soon became one of the largest if not actually the largest and wealthiest manufacturer in the trade. The making of the "Derby rib" long remained one of the most important branches of the hosiery industry.

It is worthy of mention that it was to Mr. Strutt, in the height of his prosperity, that Richard Arkwright came with his idea of spinning cotton by rollers, and that Mr. Strutt's mechanical genius and wealth enabled the poor barber of Bolton to reduce his crude idea to a practical form, and in partnership they spun the first cotton made by machinery. Calico was then made in Lancashire with linen warps and cotton weft. It was with difficulty that the new cotton was introduced in place of that spun by hand. The inventors not only succeeded in that but they subsequently spun a cotton yarn strong enough for warps also, and the first calico made entirely of cotton was made at Derby. It was only in 1730 that the first cotton had been used in the hosiery trade. A pair of stockings made of cotton yarn spun in India was made in Nottingham in that year; but the new material, once introduced, became of such importance that it was probably owing to the hosiery trade being the largest market for cotton yarn that both Hargreaves and Arkwright were induced to carry their inventions to Nottingham, where they first succeeded in putting them into commercial use.

THE HOSIERY TRADE.

One more addition to the hosiery industry in the eighteenth century is worthy of mention, because it is still of importance as a minor branch of the trade, and that is the work of "chevening" or embroidery by hand in silk upon machine-made goods. This was first done in Nottingham about 1783, although similar work had been imported from France and Spain many years before.

The eighteenth century saw the localisation of the hosiery trade almost as it is distributed to-day. It was only in 1700 that it obtained a firm footing in Leicester town, and later still that it was established in Derby. London had lost its position as a manufacturing centre before the century opened, and it rapidly dropped out altogether. The larger part of the London frames had been sent to Nottingham and Leicester before 1750, and sold at a low price; and in that year it is estimated that there were about 1,000 frames in London and 10,000 in the Midlands, clustered round Nottingham and Leicester, three-fourths of them being in the rural villages and 200 in Derby town. Thirty years later Mr. Strutt's connection with Derby had increased the importance of that district, and about 1780 Derby had become the centre of the silk hosiery trade, Leicester of the woollen, and Nottingham of the cotton branch. It was then estimated that there were about 20,000 frames in the United Kingdom, over 17,000 being in the counties of Nottingham, Leicester, and Derbyshire. London had sunk to a nominal 500 which lingered in company with the silk looms in Spitalfields, and the remainder were scattered in small quantities over the three countries, being engaged merely for local purposes or specialities. About 150 to 200 frames had gone to America before the great war of Independence and remained dormant for many years, until the emigration of the present century stimulated the business there into a living trade.

To turn again to the economic condition of the trade and of the frame-work knitters, we find the century from 1790 to 1890 full of instructive history. We have seen how the successful formation of a union in 1776 had, after a failure to obtain Parliamentary assistance, secured a fixed scale of payments which promised to protect the frame-work knitters against the influences which, in their individual helplessness, were rapidly depriving them of all return on their labour. The days of humble prosperity, with social independence and leisure which had marked the first half of the eighteenth century, were apparently lost for ever to nine out of every ten of the rural frame-work knitters; they had become in form if not in name the servants of the "master hosiers," on whose goodwill they depended for orders for goods. Whilst the new scale of payments secured by the "strike" of 1779 was maintained, they could, by working full hours, obtain something like the income which their easier labour in the old days

THE HOSIERY TRADE.

had provided. But it was not sufficient merely to fix a rate of payment for work in a trade if great events in the outer world were accumulating evil against it, and an evil system within was sowing the seed of a harvest of trouble which it would take forty years to reap. The great wars, of which the loss of America and the destruction of the French Republic were the most striking result, were being prosecuted by England with great profit to a small class of the community, but terrible suffering to the great majority. The authorities of certain parishes found themselves with a rapidly increasing number of children to support or dispose of. These encumbrances could not be sold, but a market was found for the "goods" when they gave them away with a £5 note in their little hands. Reckless master hosiers or frame-work knitters were found to accept the "servitude" of these orphaned apprentices in wholesale quantities, and instances are recorded during the worst period of firms whose entire staff consisted of fifty or a hundred of such "artisans." The poor little slaves grew up to freedom, but without care, with little or no training, often illused and neglected from their birth; they were an addition to the "journeymen," and for whom there was no place. But if employment was not to be had through the regular channels, independent frames were easily obtainable. The settlement arranged between master hosiers and frame-work knitters after the troubles of 1779 incidentally sanctioned and established the system of frame rents, and the refusal of Parliament to interfere had practically legalised it. Under the protection of this now established custom, the end of the century saw a very rapid increase of machinery. These new frames were nearly all the property of people not in the trade. Small investors saw the chance of an excellent return on their money in the possession of a frame, which would be eagerly hired by some poor parish apprentice who had "served his time" and then been dismissed to make way for another little child, and who would pay a rent which even the acknowledged custom of the trade fixed at a rate that no other investment could produce. Thus at a time when any capitalist responsible for finding a market for his produce would have been inclined to restrict his plant, the number of frames and of workers in the trade were rapidly increased by outside influences. The estimated total of about 17,000 frames in the Midlands in 1780 grew to nearly 30,000 in 1810, 12,000 of which were owned by people not in the trade. The climax was then reached, and needless frame building ceased; but, notwithstanding all the new outlets for goods which subsequently appeared, the trade was weighed down for thirty or forty years by the surplus machinery and labour introduced by these extraneous causes in the times of the great war. The standard price of work might be maintained, but the case of the

THE HOSIERY TRADE.

workers none the less became yearly worse and worse, when there was all this abnormal competition. The price of bread doubled between 1785 and 1795, and nearly doubled again by 1812. The cost of all other necessities increased in greater proportion; the common lands and other privileges of the rural frame-work knitters had disappeared, and the pressure of the times led them to part with pigs, or poultry, or other indirect addition to their household store. They were stripped bare of every source of income except the seat in their frame, and they often found it necessary to part with that and hire from week to week, often at the cost of their whole week's work, the frame which had been their own property, and which was practically the tools of their trade. As the old century died and the new one came in, considerable change took place in the style of goods made. The silk waistcoats, small clothes, and the great variety of fancy articles in stockings and gloves declined with the change in fashion, and more frames were thrown on to the plain branches of the trade. The practice of making cheap stockings by cutting them out of the rapidly made piece goods, shaping them with a pair of scissors instead of the much slower process of making them properly shaped on the frame, also increased. This production of a cheaper and very inferior article, which could be made in a fifth of the time required for fashioned goods, was strongly opposed, not only by the frame-work knitters, but by some of the leading hosiers, and denounced as flooding the market with dishonest and fraudulent wares. All these disastrous influences accumulated on the heads of the frame-work knitters despite their union and their success in maintaining the nominal rate of wages. In 1804 the Leicestershire men thought there was a gleam of hope to be gained by reviving the powers of the London Company which the Nottingham men had given up fifty years before. The company was moribund, but the charter existed, and a number paid fees to become freemen, and instituted a prosecution under its by-laws against a firm taking too many apprentices; but the hosiers combined to defend their colleague, and a costly and troublesome litigation only resulted in the imposition of a nominal fine. Perhaps, encouraged by this, or, more probably, under the influence of the pressure which now for the first time fell upon the merchant hosiers themselves, owing to the closing of the ports by the war and consequent cessation of export to their principal markets of North and South America, the leading Nottingham houses announced, in 1809, their intention of lowering wages unless the frame-work knitters could stop the production of "cut-up" goods by smaller firms. In 1810 they stopped the frames belonging to other people and much restricted their own, laying the blame on those who made "cut-up" goods and "ruined the market." Meetings of the frame-work knitters were held, and it was decided to appeal to

THE HOSIERY TRADE.

Parliament to prohibit the "spurious" goods, and loud threats were uttered against the offending firms. These were of no avail, and, as a warning, the premises of some of the best known at Arnold, near Nottingham, were entered secretly, and the frames temporarily disabled by the "jack wires" being withdrawn. The wires were taken away and deposited in the parish church where the owners could find them. This warning and hint at violence were of no avail, and in March, 1811, after a great meeting in Nottingham Market Place, sixty-three frames were smashed in the night. This outrage and others which followed were the work of an inner circle of the union who took the name of Luddites, and, finding public sympathy entirely on their side, they attacked several more of the obnoxious firms and destroyed the frames making cut-up work. The distress was great during the following winter, nearly half the population of Nottingham being on the poor rate. When the dark nights came these outrages became of almost nightly occurrence. The yeomanry and military were called out and scoured the country, special constables were sworn in, and the town of Nottingham almost put in a state of siege; but the general feeling was with the distressed frame-work knitters and no arrests were made. The Luddites by their acts succeeded in considerably reducing the production of cut-up goods and secured an advance of wages of from 5 to 15 per cent. To people at a distance, and especially to ministers in London, these events seemed no doubt more terrible than to those on the spot who understood the feelings inspiring them. When Parliament met in January, 1812, during the period of nightly destruction, the Government rushed a bill through both Houses, with the expedition usually reserved for Irish Coercion Acts, inflicting the penalty of death upon any frame breaker. The Act was utterly futile, but the debate upon it is rendered famous by being the occasion of the maiden speech of Lord Byron in the House of Lords. As this was practically the only time the great poet made an important speech in Parliament it has a literary interest of its own; and as he was a Notts man, born and to a great extent brought up in the midst of the frame-work knitting population, his testimony as to the condition of affairs is sufficiently valuable to permit a short extract from his speech. He said:—

To enter into details of the riots would be superfluous. The House is already aware that every outrage short of actual bloodshed has been perpetrated. During the short time I recently passed in Nottinghamshire not twelve hours elapsed without some fresh act of violence. But while these outrages must be admitted to exist to an alarming extent, it cannot be denied that they have arisen from circumstances of the most unparalleled distress. Nothing but absolute want could have driven a large and once honest and industrious body of people into the commission of excesses so hazardous to themselves, their families, and the community. When we are told that these men are leagued together not only for

THE HOSIERY TRADE.

the destruction of their own comfort but of their very means of existence, can we forget that it is the bitter policy, the destructive warfare of the last eighteen years which has destroyed their comfort, your comfort, all men's comfort? That policy which, originating with "great statesmen now no more," has survived the dead to become a curse on the living unto the third and fourth generation. These men never destroyed their looms till they were become useless, worse than useless, till they were become actual impediments to their exertions in obtaining their daily bread. These men were willing to dig, but the spade was in other hands; they were not ashamed to beg, but there was none to relieve them; their own means of subsistence cut off, all other employment pre-occupied, and their excesses, however to be deplored and condemned, can hardly be a subject of surprise. I did hope that any measure proposed by his Majesty's Government would have had conciliation for its basis, and not that we should have been called at once, without examination and without cause, to pass sentence by wholesale, and sign death warrants blindfold. Admitting for a moment that these men had no cause of complaint, that they deserved the worst; what inefficiency, what imbecility has been evinced in the method chosen to reduce them! Why were the military called out to be made a mockery of? Such marchings and counter marchings! From Nottingham to Bulwell, from Bulwell to Basford, from Basford to Mansfield! Arriving just in time to witness the mischief which had been done, and to collect the fragments of broken frames and return to their quarters amidst the derision of old women and the hootings of children. Had proper meetings been held in the earlier stages, means might have been devised to restore these workmen to their avocations and tranquillity to the country. At present the county suffers from the double infliction of a useless military and a starving population. You call these men a mob, desperate, dangerous, and ignorant, and seem to think the only way to quiet it is to lop off a few of its superfluous heads. But even a mob may be better reduced to reason by a mixture of conciliation and firmness than by additional irritation and redoubled penalties. Are we aware of our obligations to a mob? It is the mob which labour in your fields and serve in your houses; that man your navy and recruit your army; that have enabled you to defy all the world, and can also defy you when neglect and calamity have driven them to despair. I have travelled over the seat of war in Spain and Portugal, I have been in some of the most distressed provinces of Turkey, but never under the most despotic of infidel governments did I behold such squalid wretchedness as I have seen since my return in the very heart of a Christian country. How will you carry this bill into effect? Can you commit a whole county to their own prisons? Will you erect a gibbet in every field, and hang up men like scarecrows? Will you depopulate and lay waste all around you, and restore Sherwood Forest to its former condition of a royal chase and an asylum for outlaws? Are these the remedies for a starving and desperate populace? Will the famished wretch who has braved your bayonets be appalled by your gibbets? If you proceed by the forms of law, where is your evidence? Those who have refused to impeach their accomplices when transportation only was the punishment will hardly be tempted to witness against them when death is the penalty. But suppose one of these men, as I have seen them, meagre with famine, sullen with despair, careless of a life which your lordships value at something less than the price of a stocking frame, suppose this man, surrounded by the children for whom he is unable to procure bread, about to be torn from the family which he lately supported in peaceful industry, and which it is not his fault that he can no longer support, suppose this man, and there are ten thousand such from which you may select your victim, dragged into court, to be tried for this new offence by this new law, still there are two things wanting to convict and condemn him, and these are, in my opinion, twelve butchers for a jury and a Jeffereys for a judge!

THE HOSIERY TRADE.

In the same session of Parliament the frame-work knitters also provoked a still more notable speech. This was upon the bill which had been introduced by the friends of the knitters to prohibit "cut-up" work, fix a minimum wage, forbid deductions under the form of frame rents and payments in goods instead of money, and generally provide a legal remedy for every commercial evil. The famous Joseph Hume, then in his first session of Parliament, made one of those weighty and eloquent expositions of the new economic principles which were first to be ridiculed by but finally to conquer the House of Commons. He protested that nearly every clause was unsound in principle, and would be ultimately injurious. He declared for freedom of trade from all such restraints, and, above all, pointed to the removal of the penal laws which made every union of workmen an illegal and secret society, while the employers were allowed to combine, and were supported by all the powers of the law. The House of Commons of 1812 was unprepared to accept such teaching, and passed the bill; but the House of Lords, agreeing neither with the good-hearted if mistaken House of Commons nor with the philosophic arguments of Mr. Hume, kicked it out with as much celerity as it had rushed the "hanging" bill a few weeks before. The frame-work knitters, however, without the aid and in despite of the legislature, obtained by their union, illegal though it might be, the redress of the worst evils and an advance in wages which, considerable though it was, was little enough with bread at 21½d. the quartern loaf. They found, however, considerable difficulty in maintaining the rate, and a few frames were broken in the winter (1812). The men were not relying on violence, but were bending their real efforts to extending their union and drawing in the Leicestershire men. One great united society of all branches was announced in 1814, and the new rate of wages was made general throughout the trade for a short time. The masters on their part formed a more complete combination, and took steps to break the union and prosecute the leaders under the Combination Laws, and so it gradually languished. The peace of 1815 and the opening of the ports brought about a little revival of business, and, whatever trouble there was to follow, no more frame breaking has ever occurred. About 1,000 frames in all were destroyed during the four years it lasted.

The general distress, not only in the hosiery trade but throughout the country, remained very great. The mere cessation of the great wars did not undo the social and economic desolation which they had created. In the hosiery trade the state of "scarce half work to be got or half bellies to be filled" became the normal condition of the frame-work knitters. Those in Leicestershire, who had hardly joined in the more vigorous action of the Nottingham men, were

THE HOSIERY TRADE.

the worst sufferers in both short work and bad pay. The parish had to support many and assist nearly all. One fatuous mistake was made. The parish authorities, when no work was to be had, purchased yarn and employed the men at their trade, with the only result that the authorities accumulated stocks of goods which they threw on the market at low prices, and so increased the dislocation of trade. The remedy was thus worse than the disease, even if it lightened the poor rate for the time.

The year 1819, which was the year of the Peterloo massacre in Manchester, was a period of great distress throughout the country, and the worst in the hosiery trade since the dark winter of 1812. An appeal to Parliament for help was made by the Leicestershire workmen, the Nottinghamshire men refusing to join. A committee was appointed and sat for six weeks, hearing all the old evidence about low wages, and frame rents and "cut-up" work ruining the trade. The committee this time reported that it seemed desirable to restrict the production of "cut-up" goods, which were usurping the place of sound work, and recommended that the "spurious" work should be prohibited for three years as an experiment; but nothing came of it. The frame-work knitters of Nottinghamshire, not earning even their frame rents, put their frames on carts, and, surrounded by their gaunt and ragged children, drew them into the town and deposited the frames at the doors of their owners. This demonstration induced the hosiers to meet and agree to a new and advanced list, which was issued in August and September, 1819. A public subscription was also raised, and three hundred families emigrated to the Cape. The new list was not maintained. The Leicester poor rate was £23,599 in 1819, and the Leicester men having had very little part in the secret union in Nottingham, the gentry of the county joined them in forming an open and legal union, which was purely a benefit society. They proposed that every man should pay sixpence per week while in work and women and youths threepence; the men to receive 6s. when out of work and the others 3s. A committee of gentlemen acted as trustees and managed the fund, and public subscriptions as well as contributions from the parishes were invited. At the end of twelve months it was found that £6,000 had been paid out, of which the workers had contributed £4,400. At the same time the Nottingham men turned out and struck work for the maintenance of the list of 1819. The strike was not only successful in accomplishing this object, but, as scarcely a dozen pairs of hose were made in the three counties in three months, the large stocks of goods were cleared off, and the parishes having seen their folly in turning manufacturers, a more healthy demand arose. Indirectly, the Leicester benefit fund contributed largely to the success of this strike by maintaining those

THE HOSIERY TRADE.

who were out of work ; over £6,000 was expended in the first three months of 1821, £1,500 being borrowed on the note of hand of the rich supporters, which was eventually repaid by the workers. The poor rate was reduced by half, but as wages had risen nearly 50 per cent, and the great strike in Nottingham been indirectly assisted, the promoters found that their "benefit society" had really been a most efficient "combination to raise wages," an illegal proceeding which nobility and gentry were not anxious to be involved in. The fund was closed, having distributed £16,182 in less than two years, over £10,000 of which had been contributed by the workmen, £3,000 by the public, and £2,500 by the parishes, whose rates had been relieved to a much greater extent.

This great object lesson was apparently not lost upon the workmen's leaders, and their efforts at combination in the future were directed towards uniting the advantages of a benefit fund and a trade organisation, which is the form trade unions have universally assumed. The price of work was with difficulty maintained. In 1822 a partial strike was necessary, but the next year things were as bad as ever. Efforts were successfully made during 1823 to strengthen and extend the union, and in 1824 a more prolonged turn-out than any before took place. The sufferings in this were greater than in 1821, when the benefit fund of the Leicestershire gentry was of such material assistance, and, after being "out" from thirteen to eighteen weeks, work was resumed without any assured success. The contributions could not be kept up, and the employers, having combined firmly to oppose the strikers, the union lost its strength. The national panic of 1826 brought ruin all round and disaster to the hosiers. Renewed efforts by the frame-work knitters were hopeless, and an attempt to organise another strike in 1827 failed. The miserable and starving frame-work knitters were led about this time to look towards political reforms as the remedy for their troubles, and gradually the suffering and discontent focussed itself upon the demand for the Reform Bill which was ringing through the country and was the centre of so many hopes. It is not surprising that, when the crisis came and the House of Lords threw out the bill, the frame-work knitters of the county should be the first to swarm into Nottingham to protest in public meeting in the great Market Place against the action of the hereditary House, nor that the meeting should be followed by a more violent demonstration in the burning of Nottingham Castle and Colwick Hall, and other riotous proceedings, which had so much influence in securing the subsequent passage of the bill. The election of the reformed Parliament was looked forward to with confident anticipation. The most repressive laws against trade unions having been repealed in 1824 by the influence of Mr. Hume, an attempt was made to create a strong union,

THE HOSIERY TRADE.

on open and legal lines, which could represent the whole trade of the three counties in presenting their case to the new Parliament. In reply to their petition, a Government inquiry was granted, and the old demands were renewed for a minimum wage to be fixed by law, that apprentices should get "less work and more food," the provision of allotments of land, and, taking advantage of the wise advice of Mr. Hume given nearly twenty years before, they asked for the "fraudulent" cut-up goods to be dealt with, not by prohibition, but by being marked in such a way that the purchaser should not be deceived, the suggested label being the somewhat disrespectful title of "leg bags." At this time fully one-third of the machinery at work in the trade was engaged upon piece goods to be cut up in this way, and as a frame produced stockings of this quality in from four to sixfold greater quantity than by making fashioned goods, the greatly increased output obtained from a smaller number of frames and the consequent hardship to the rest may be imagined. Lord Melbourne's Government did not see any wisdom in legislative interference, and the union, driven back once more upon their own resources, decided to test the powers of their larger organisation by a general strike. The mere announcement of this decision, however, was sufficient to obtain some concessions, and, trade improving a little, the condition of the frame-work knitters began to mend. The gradual expansion of trade had for some years been creating more regular employment for the great surplus mass of machinery introduced into it more than thirty years before, and although the mechanical power of production was increased very little from 1810 there was still and long remained an over-abundance of frames.

The most notable changes in the products of the trade during this period were those which resulted from the transition from the knee breeches of our grandfathers to the trousers of to-day. In 1810, the sock or half-hose trade was commenced in Leicester, but this curtailment of the stockings was compensated for by the making of piece goods for pantaloons, which preceded trousers for a short time, and then took the form of undergarments to be worn beneath them. With this change almost the whole of the "fancy" trade disappeared for forty years, and only reappeared in the modified form of tasteful colours and stripes in socks and ladies' stockings, which came in with the advent of the factory system and new machinery in the "fifties."

The period from 1830 to 1840 saw another important change in the organisation of the trade, and this was the rapid increase of a class of middlemen between the rural frame-work knitters and the hosiers in Nottingham and Leicester. These were at first simply individual frame-work knitters, who acted for several of their neighbours in carrying their work into the town and bringing out the yarn and orders.

THE HOSIERY TRADE.

But gradually, from being probably the ablest, they acquired power and property, and the frames of weaker men fell into their hands. The "bag hosier," as he was called, thus became a little master employing others. This gave a fresh lease to the anomalous system of letting the frames out for "rent," for the bag hosiers quickly began to exercise the power of making harsh exactions with all the usurious characteristics which had aroused such bitter feelings in the early years of the century. In 1833 the frames in the trade were about equally divided between the large firms and the frame-work knitters. But from that date the frames of the latter began to fall rapidly into the hands of this new class of middlemen. Frames which would cost from £20 to £30 to build changed hands for £3 or £4, whilst the weekly rent obtained for them averaged £3 per year, in addition to which there were charges for standing, for fire and lights, a charge for carrying goods to town, and then, over and above all, a "truck" shop was added, from which the frame-work knitter received most or all of the balance due to him in dear food and necessities. For ten or fifteen years the bag hosier was the "villain" of the frame-work knitters' tragedy. The assistant Poor Law Commissioners engaged in reforming the poor law between 1834 and 1840 gave dreadful accounts of the poverty and misery of the frame-work knitters, their starved children and wretched homes. The sufferings of that section of the frame-work knitters which fell under the yoke of unscrupulous bag hosiers were probably as great or greater from 1835 to 1845 than during the terrible days earlier in the century.

Like so many of the working class—disappointed in the failure of the millennium to appear upon the passing of the Reform Bill—they joined eagerly in the hopes which surrounded the agitation for the "Charter," and the part taken by the frame-work knitters in the Chartist movement was not restricted to peaceful methods. They broke out in riots and violence and some preparation for an armed insurrection, but beyond returning the Chartist leader O'Connor as M.P. for Nottingham, the frame-work knitters' interest had little practical effect. Direct appeals to Parliament on their own behalf had again been tried, and a petition of 25,000 frame-work knitters in 1843 resulted in the appointment of a Commission of Inquiry, and the Commissioner's Report gives a vivid description of the destitution and low wages and lack of employment. He exposes the pressure of bag hosiers' rents and charges and the continuance of the truck system, under which, despite its illegality, the vast majority of them paid their debts in dear goods. The petitioners had complained of the frame rents, and made the novel request that these should be limited on the lines of the old laws against usury, and the Commissioner sympathised with them, he being apparently convinced that under the protection of the sacredness of the word "rent" an iniquitous system of extortion

THE HOSIERY TRADE.

was being carried on, and that (to say nothing about the "cent per cent" interest) the system of distributing the work of one frame amongst three or more in order to get rent from all, was the prime factor of all other evils.

But a great change was in progress—the brighter day was dawning without need of Parliamentary interference—and in less than twenty years there was going to be once again, after 100 years of "stint," full work for every man, and almost on his own terms. The evil legacy of the great period of war and glory had survived nearly fifty years, but it came to an end at last. The clients of unscrupulous bag hosiers were suffering, but they were only a section of the trade, and the large firms in the towns were turning their attention to improving the machinery and the quality of goods, and were riding on the wave of expanding trade and prosperity, in which the whole nation was participating. The great mass of surplus unemployed machinery in the trade during the first half of this century had a very powerful effect in checking the invention of improved frames; the long stagnation had almost killed off the class of machine builders, and dissipated the inventive mechanical genius which had shown itself all through the eighteenth century. Steam power had been applied to many younger manufacturing industries, and the factory system had taken the place of the old cottage industries in Lancashire and Yorkshire many years before, but the hosiery knitting frame, so much more intricate than the spinning or weaving looms, was still worked in its complicated movements by the hands of rural peasants in their cottage homes; and so late as 1845 the average number of frames under a single roof was only three. From the first improvement in trade after the passing of the Reform Bill, great efforts were made to adapt the various movements of the stocking frame to one simple rotary action. This was accomplished to a limited extent, and by 1843 a small number of rotary frames had been built and were employed on piece goods. About 1845 a further adaptation enabled steam power to be applied to these frames. At the same period a beautiful little machine, which had been invented by the great engineer Brunel many years before, almost as a domestic toy, was introduced into the trade. It was entirely different in form to Lee's frame, although based on the same mechanical principles. The needles being placed in a circle enabled a web to be knitted without a seam, but also without any variation in the circumference. The machine simply produced a long never-ending "tube" of web, which could be cut into lengths of any size. The absence of any fashioning in stockings made from this production was their most glaring fault, and, in fact, they were more worthy of the opprobrious epithet of "leg bags" than the cut-up goods fashioned by scissors, which had been such a grievance to the makers of good stockings in the past.

THE HOSIERY TRADE.

But in the expanding trade there was room for all kinds and qualities, and the use of the new machine spread rapidly, especially when it was subsequently adapted to the making of ribbed goods, the additional elasticity of which reduced the disadvantage of the absence of "fashion." These inventions of circular machines and the rotary machines, especially when they came to be gathered into factories and driven by steam, increased the output of the trade enormously. The increase was in the manufacture of those cheap and shapeless "leg bags," the limited production of which from small hand frames had threatened the trade with ruin, and yet there was work for all and wages rapidly increased. The fact was that there was an apparently unlimited demand. The millions in England to whom stockings and shirts had been almost impossible luxuries during the long years when even bread was unobtainable, now required to be clothed. The great expansion of trade advancing by "leaps and bounds" was almost entirely in the "home" trade, the quantity exported increasing but very little from 1840 to 1853. Between 1850 and 1860 the produce of the trade more than doubled, and the export trade, except for a check during the American War, increased with it. This later extension was due to the increased application of steam power. The trade was far from being a "factory industry." In 1860 there may have been about 1,000 circular frames in Nottingham turning out their tubular webs by the mile, and the same number of the rotary frames averaging forty inches wide, both driven by power. But there were at the same time from 20,000 to 25,000 of the old frames mostly about twelve to fifteen inches wide, spread throughout the county, and double that number in the Midland district. Upon these the frame-work knitters made nearly all the best and most important classes of work.

An entire change having taken place with the expansion of trade in the condition of the frame-work knitters, one more attempt was made to abolish frame rents, and a committee of the House of Commons in 1855 reported that such a system was unknown in any other manufacturing industry, that it was contrary to the spirit of the Truck Act, and suggested that a special Act should be passed forbidding it. Twenty years later this was carried out, but at the time nothing came of their suggestion, and with ample work and full wages the rent which had once swallowed the whole week's income became a comparatively trifling deduction. The "tommy shop" had been put down by a prosecution of the Poor Law Authorities in 1847, and the "bag hosier," after his first wild raid in the character of a grabber, usurer, and oppressor of the poor, had settled down to a recognised and necessary middleman, doing a mutual service for a reasonable remuneration at a well-established standard rate. With increased wages the frame-work knitters

THE HOSIERY TRADE.

worked fewer hours than in the days when fifteen or sixteen hours incessant labour would only bring in 6s. or 7s. per week, and this helped not only to restore a healthier tone to the trade by limiting the output, but gave once more the physical health and strength which the frame-work knitter had never enjoyed since the days when, nearly a hundred years before, the good rector of Calverton had inscribed his pithy record of the trade in the parish register, and added the prayer, "The Lord have mercy on the poor." The trade unions were maintained, and with now nearly a century of experience behind them, the workmen's organisation was most effectively able to secure one advantage after another, until they practically dictated their own terms to the employers. After a prolonged strike in 1860, the last of a series in which each branch at work had successfully supported that which turned out, an ideal long talked of, and long dreamt of, in the world where capital and labour struggled was practically realised. This was the organisation of a Board of Arbitration for the Notts hosiery trade, or rather a Board of Conciliation, upon which representatives of both employers and employed should sit side by side on equal terms and settle disputes by amicable discussion instead of by the warfare of strikes and lockouts. The first meeting of the Board, on December 3, 1860, marks an epoch in the relations of capital and labour in the country. Strikes and labour wars are still too frequent, and small disputes have occurred in the hosiery trade; but for many years, during which all England was agitated by labour disputes and violent outrages, the hosiery trade, which had long been the most turbulent in the country, was the most peaceful, and the relations between employers and employed perfectly amicable. This solution of the problem (at a time years before trade unions were really recognised by law and when the predominant feelings in Parliament and in the country were that they should be suppressed and destroyed by vigorous coercion and penal enactments) made a great impression, and contributed not a little to the spread of more rational views.

Contemporary with the establishment of the changed relations of employer and employed in the hosiery trade, a change, which was little less than a revolution, was accomplished in the machinery of the trade. Many minor improvements had been made in Lee's frames, and steam power was successfully applied in driving the rotary and the circular machines, but the important part of the trade was shut off from the use of steam power so long as fashioned goods could only be made by hand. Many were the efforts made to adapt the rotary frame for the automatic narrowing and widening of the work in the process of knitting, and so make a perfect self-acting substitute for the many movements of the frame-work knitter. Some small success in 1838 stimulated these endeavours, and at last

THE HOSIERY TRADE.

William Cotton, of Loughborough, succeeded in devising a principle, in 1851, by which the web was automatically widened; but it was more than ten years later before he achieved the mechanical triumph of both widening and narrowing the web in the course of manufacture. As soon as frames built on the principle of Cotton's patents were successfully at work, and not before, could it be said that the days of the hand frames were numbered, and that automatic machinery driven by steam power could displace the laborious movements of hand, arm, and foot of the frame-work knitter.

The five-and-twenty years which have passed since then have wrought a great change in the trade. Large factories filled with new and rapid machinery are now not only the characteristic feature of Nottingham and Leicester, but they have sprung up in scores of rural villages, and gathered within their sheltering walls the frame-work knitters, whose occupation was being destroyed, and whose frames were doomed to the scrap heap. When William Lee set up his first frame in London he boasted to Queen Elizabeth that he could knit at the rate of 600 loops per minute. If he could return to life and walk into a modern factory he would see frames turning off 150,000 to 200,000 loops in the same space of time. But the clever young country parson would still have ground for pride in his little frame which stood through so many generations as an almost unsurpassable model of mechanical ingenuity. Nearly all the English inventions have followed his principle. We have traced through two centuries the progress made in developing and transforming it which culminates in the recent adaptation of "Cotton's" patent frames so that ribbed fabrics may be made upon them. But these machines of vast power, and constructed with all the refinements of modern mechanical skill, are little more than an idealisation of Lee's original effort. The one task which Lee would not attempt—that of imitating hand knitting so completely as to make a seamless stocking—has been achieved by the ingenuity of American inventors, who have so developed Brunel's idea of a circular machine as to turn out complete seamless fashioned stockings by mechanical means. These "stocking knitters" were first constructed for household use, but the adaptation of them to steam power has created a growing manufacturing industry which has spread over America, and with Bolton, in Lancashire, as its centre in England, is now competing with Nottingham and Leicester for a share of the home trade.

From the day when Lee's brother left one of the earliest frames at Rouen, on his return from France, English makers have always had their foreign trade disputed by a certain amount of purely local manufacture in almost every country of the world. Thousands of frames of English make were in very early times spread in little

THE HOSIERY TRADE.

groups over Europe, but whilst each competed in their own district with the English merchants, there was little, if any, general competition from any quarter until about 1830. At that time the large number of frames in Saxony began to be drawn together, and to send goods beyond their own borders. They quickly entered the great market for hosiery across the Atlantic, and this step was followed by competition in England itself. This commercial spirit and enterprise in Saxony had a curious origin. More than a hundred years before, the great woollen trade of Ireland had been killed by a stroke of the pen. And just as in the seventeenth century the English manufacturing industries had been founded by the Protestant refugees from French and Spanish persecution, so in the eighteenth century the woollen manufacture of Saxony had been founded by Catholic refugees from English persecution. Saxony was thus prepared by a long apprenticeship to enter the industrial market in competition with the experienced traders of England. The cost of living in Saxony was low, and labour cheap, and in spite of protective duties in England, goods of the lower class began to be imported to this country not only for re-export but for home consumption. In 1853 the import duty was fixed at 3d. per dozen for gloves and socks, and 6d. per dozen for stockings. The newly-invented English round frames were purchased by the Saxony manufacturers, and in every way the trade was managed with ability and enterprise. As a measure of its exact importance before the import duty was removed, it may be recorded that of the one article of "cotton stockings" the English exports in 1859 were 907,705 dozen pairs, of which 11,867 were of foreign manufacture, and in the same year 42,495 dozens of cotton stockings and 35,424 dozens of cotton gloves were imported for home consumption. The woollen trade was much less. This small but significant competition in the home market is only indicative of the competition in neutral markets, especially those on the continent of Europe.

Probably the most interesting fact in connection with the growth of the Saxony hosiery trade was the enlightened encouragement given to it by the Government. This presents a marked contrast to the fatuous attitude of the English Government during the two centuries in which the trade came so frequently under the notice of Parliament only to be mischievously interfered with or mischievously neglected. The education, both general and technical, given to the workmen in Saxony by State aid in the form of subsidies, supervision, and compulsory attendance, revealed to Englishmen thirty years ago a new way of Government interposition in commercial affairs—a method more beneficial to the community than the hanging of starving frame-work knitters, or of emigrating them to the Cape by public subscription, or by blindly defending any exaction which

THE HOSIERY TRADE.

clothed itself with the sacred name of "Rent." There is no doubt that the vivid object lesson presented by Saxony to the Nottingham manufacturers subsequently played an important part in the agitation which has at last set England in the wake of Germany in educational affairs.

With the exception of the small competition from Saxony the English manufacturers have always retained full control of the home market, but the active manufacture abroad, especially in France and Germany, has usually kept the continental markets closed to English goods. The machinery employed in Europe has generally been of English build, but the exportation of English machinery has diminished lately, particularly during the last five to seven years; machinery both of Cotton's system and others being now built at the two principal continental centres of the trade, at Chemnitz in Germany and Troyes in France.


The English export trade of goods since the opening of the present century has been principally to America, both North and South, and to Australia. The proportionate distribution of the trade has been fairly constant, though steadily increasing in total quantity. It may be roughly divided as follows:—Nearly one-half of the whole to the United States, nearly a quarter to Australasia, nearly another quarter to South America and the West Indies; the only other important markets being British North America and India. There has always been an important local manufacture in the United States which has been sedulously nursed—probably to its own detriment—by an ever-increasing protective tariff. The recent M'Kinley Bill and the troubles in South America have both most seriously restricted the English export trade in its two most important foreign markets. At the present moment the trade is consequently under a cloud, and there has probably been a larger proportion of machinery idle during the past year than at any time since the trade entered upon its modern phase as a "factory system" employing steam power.

In tracing it through three centuries I trust I have shown that the long history of "frame-work knitting," if studied in detail, presents, as I said at the outset, one of the most interesting epitomes of the manufacturing history of England. Generations before the birth of nearly all our modern industries the frame-work knitters and their employers were grappling with most of the problems which some trades are only now facing for the first time. In the relations of capital and labour, in questions of the good or evil of legislative interference with trade, of foreign competition both abroad and at home, of labour combinations, strikes and arbitration, and of education, the hosiery trade has been the "vile body" in which experiments have been made; and the bitter experiences of hosiers

THE HOSIERY TRADE.

and frame-work knitters in the distant past has perhaps contributed something to the happiness of later generations in their own and other trades.

The history of the hosiery trade presents perhaps the longest unbroken record amongst the textile industries of the country. In the village where William Lee set up his first frame, and in many another rural village of the Midlands, the peculiar hiss of the stocking frame may still be heard as Queen Elizabeth heard it three centuries ago. The rural frame-work knitters with their frames in their cottages are not now the only body in the trade, but they retain an important position. The latest returns of the Government inspectors show that the factories with steam power in England and Wales have increased from 149 in 1875 to 243 in 1890, and the workers in the factories at the latter date numbered 8,881 males and 14,966 females. Notwithstanding this growth there is still a use for some thousands of the old hand frames, and the frame-work knitters, with their free choice of hours of work, their independent position, their healthy life in rural villages far from the tyranny of the factory bell and the noise and unnatural conditions of modern manufacturing towns, preserve some traces of the days before the tall chimneys claimed human beings as mere details in a vast machine. They may be only a survival, but perhaps they may maintain an old tradition until the dawn of a coming time when some other motive power than coal and steam shall restore to our toilers in many trades the more natural conditions of life and work which the factory system has destroyed.



THE WORLD'S ACCUMULATION OF CAPITAL.

MEANING OF THE FIGURES.

BY T. LLOYD.

ONLY a single Government—that of the United States of America—has, strange to say, thought it worth while to incur the cost and trouble of trying to ascertain the amount of wealth accumulated up to the present time by the people subject to its jurisdiction. The United States Government takes a census every ten years, and, while enumerating the people, it attempts to find out the value of the whole property of the Union. The method employed has often been criticised, and the results obtained questioned. Of course, it is to be understood that the figures are not literally exact. Land, for example, constitutes the largest part of the wealth of the Union; but, as everybody knows, only a small part of the land of any country comes into the market in a year, or even in ten years, and therefore by far the larger portion of all the land can only be valued. But the valuation, though it is not strictly accurate, is not far from the truth, if sufficient care is taken by those who are employed to make it, and if they are qualified by their previous occupations to carry out the task. Although, then, the results arrived at in each census of the United States are not, like the returns of revenue and expenditure issued by the Government, literally exact figures, they are near enough for all practical purposes. Those employed cannot have any interest in representing the wealth of the country to be either larger or smaller than it really is, and their duty commands them to fulfil, as nearly as they can, the instructions of their Government. In no other country, however, is an effort made to ascertain the wealth, either because statesmen think that the cost would be too great, or because they despair of getting figures that would be worth having. Although, however, we have not official statements, as in the case of the United States, we have very good estimates for the principal European countries. Experts, whose lives have been passed in the study of this and similar questions, have devoted much time, care, and thought to the inquiry, and they are able to base their calculations to a very large extent upon official figures. For example, in our own country the income tax returns are published every year, and they give the total aggregate incomes of all residents in the United Kingdom who are liable to the tax. No doubt some persons escape altogether by making false returns, or by not coming under the notice of the

THE WORLD'S ACCUMULATION OF CAPITAL.

collectors, and in many cases, too, though there is not a complete escape, yet the returns are under the truth. On the other hand, not a few, for the sake of raising their credit, exaggerate their incomes. The one error to some extent counterbalances the other. And in any case the experts in question are able to make allowances for errors of the kind. Furthermore, the probate and legacy duties enable them to check their calculations based upon the income tax returns. As our readers know, the property of every person dying is subject to a duty whether he leaves a will or not, and the amount of property so taxed that passes by death every year affords a means of correcting the calculations from the income tax returns. There are several other data which help the experts in their calculations, such, for example, as the valuations of the local authorities, the Board of Trade returns, the lists published by the Stock Exchanges, and the like. It is very true that those liable to the income tax constitute only a small minority of the population, but in estimating even for the remainder there are many helps. The estimates framed from all these data do not pretend to strict accuracy any more than the American census returns; but, though they are only approximations to the truth, they are close enough for most practical purposes. Similar estimates have been made for France, Austria-Hungary, Italy, Belgium, and some other continental countries, and all these may be regarded as near enough to the truth for practical purposes; and the colonial estimates are equally good. In most foreign countries there is no income tax, but there are the succession duties, licenses, land tax, and a great variety of other official information to guide the estimators. But the estimates framed for the more backward countries, such as Russia, Turkey, the Balkan States, and Egypt, cannot be expected to be equally good. The experts who draw them up do the best they can with the materials at their disposal, but the materials are far from complete. For instance, even a complete census of the people has not been taken in Russia for many years; and if we do not know with any approach to accuracy either the numbers of the population or the area of the Empire, it is not likely that any calculations that may be made of the wealth of the Empire at all nearly approach the truth. They are very rough approximations—or perhaps it would be more correct to say, good guesses with some official data to guide them—nothing more.

It is easier to arrive at a fairly close approximation to the wealth of a country than to find out what its debts amount to. Properly the debts of the poorer borrowing countries ought to be subtracted from their wealth, and added to the wealth of the lending richer countries. Everybody knows that the saving classes amongst ourselves invest largely in the loans of foreign countries, in the bonds and shares of

THE WORLD'S ACCUMULATION OF CAPITAL.

foreign railway and other industrial companies, in breweries, farms, factories, and so on. A considerable part, therefore, of the wealth of this country is in foreign states. But the property owned abroad by British people really does not form part of the wealth of those foreign countries. It is impossible, however, to attempt to ascertain how much foreign property is held in Europe. Investments are constantly shifting. Sometimes people buy foreign properties on a large scale, sometimes they sell. Besides, nobody can find out how much property situate abroad is owned by foreigners or is pledged to foreign bankers. It is notorious that in the colonies and in North and South America immense sums are lent by Europeans upon mortgage and the like, but there is no way of finding out the actual amount of those loans. At first sight, then, it may appear that the estimates which are given a little lower are too great, that a portion of the world's wealth is counted twice over—counted, that is to say, in the wealth of Europe and in the wealth of the poorer borrowing countries. Allowance can be made for the State debts, though not for the private debts. But in reality it will be found that the estimates are under rather than over the truth, because there are omitted from all the estimates very valuable properties, chiefly public property, which quite counterbalance any that may be twice counted. As an instance, our readers will recollect that a very considerable part of the property of this country and of other highly-civilised prosperous countries consists of the railways. The railways are owned by private companies, the stocks are dealt in every day upon the Stock Exchange, and are bought and sold in very considerable amounts. Thrifty people put their savings in these stocks to make provision for their own old age and for their widows and children, and it is easy for anyone who takes the trouble to find out what is the value of the railway property at home and abroad. But important as the railways are, they are really far less important than the common roads of every country. It is almost certain that the common roads have cost more. They were made ages ago, they have been improved and repaired by the outlay of immense sums of money by successive generations, and by the expenditure of an immense amount of human labour. They are even more important for facilitating trade than the railways are. Take such a city as Manchester, say, and think of what importance to every kind of business are the streets, that is the roadways lying between the rows of houses that face one another. Life would not be possible without these streets. Again, more traffic passes over the common highways of a country than over the railways. The highways are feeders of the railways, and it is over the highways that the goods carried by rail are transported to the factories where they are worked up, to the shops where they are sold, and to the consumers that

THE WORLD'S ACCUMULATION OF CAPITAL.

finally purchase them. Everything, in short, carried over the railways is first conveyed to them over the common roads, and afterwards carted away from them over the roads; and very much besides passes over the common roads that never goes by rail. Looked at from any point of view, then, the common roads are even of greater importance than the railways; and yet it is impossible to estimate what is the value of the common roads. Some of them were once owned by companies, and tolls were levied from those who travelled over them; but, speaking generally, the roads were never at any time private property. They were constructed at the public expense, and they always belonged to the public authorities. Neither their shares nor debentures are quoted in the list of any Stock Exchange, nor can any saving person who wishes to make provision for his family invest in their stocks. It would be a task of Herculean labour to attempt to estimate even the money that has been expended in making and repairing them. Possibly it might be done here at home, if there was a sufficient army of clerks to examine all the local accounts throughout the United Kingdom; but it is almost inconceivable that the thing could be done over all the world. It will be understood, then, that a very large part of the property of the world—property in itself even more important than many kinds of property that are estimated—cannot be valued in any way. And when this is borne in mind it will be seen that the estimates about to be submitted are really very much under the mark.

With the foregoing explanation that the estimates are not put forward as literally accurate, that even their authors do not claim for them anything more than a more or less close approach to the truth, and that several kinds of public property are not included, the estimates framed by the best authorities of the wealth of the civilised part of the world are submitted. It would be useless to give estimates for such countries as the interior of Africa, Arabia, Persia, or even China. There are no data that would enable any expert to make even a good guess; but for the civilised world the figures may be regarded as fairly close approximations to the truth:—

United States of America (1890).....	£12,000,000,000
United Kingdom (1885)	10,000,000,000
France (1886).....	7,200,000,000
Other European Countries	24,000,000,000
Other Countries	6,800,000,000
<hr/>	
Total.....	£60,000,000,000

When the foregoing table was made up the definitive American census returns had not been published, but from the preliminary

THE WORLD'S ACCUMULATION OF CAPITAL.

publications it appears certain that the final estimate will not be less than the above, and probably will be larger. The estimates for the United Kingdom and France are given separately because the estimates in both cases are by experts of very high authority, and the details furnished by them are very full. The remaining countries included are given in two groups under the headings "other European" and "other countries," partly because there does not seem to be anything to be gained by setting out a long list of countries' names with figures opposite to them, and partly because the estimates are neither very full nor very trustworthy, except in a few cases. But they are generally accepted as loose approximations to the truth, and may pass as such.

KINDS OF CAPITAL.

MONEY forms but a very small part of the world's wealth, nothing like 1 per cent perhaps. Bankers have taken much pains to ascertain the amount of money in the United Kingdom, and, as far as they have been able to find out, they have come to the conclusion that all the gold, silver, and copper coin is under 100 millions. But Mr. Giffen estimated the total wealth of the United Kingdom in 1885 at 10,000 millions; therefore the total coin did not form £1 in the £100 even of the wealth of seven years ago, or say, roughly, about twopence for every pound's worth in the United Kingdom. In France and some other rich countries, money constitutes a larger proportion of the wealth than it does with ourselves; but, on the other hand, in very poor countries there is often no money at all, and there is generally very little. In Russia, for example, what serves as money is the notes of the Imperial Bank, which are only promises to pay cash, not cash itself. And in Austria-Hungary, Argentina, and many other countries, the same thing is the case. It is certain, therefore, that, taking the whole world together, the proportion of money to the wealth of the world is decidedly smaller than it is in the United Kingdom, and we are perfectly safe, therefore, in saying that there are not twopence of actual coin for every pound's worth of valuable things in the world. The use of money is to facilitate buying and selling. If the owner of a sheep, for example, wanted to get for himself and his family hats and coats and shoes, it would take up too much of his time if he had to run about to find owners of hats and coats and shoes who were in want of a sheep; and even if he did find them, it would not be easy to settle how much of the sheep was worth the number of hats, and the number of coats, and the number of shoes that he wanted. Money saves the person who wants to buy or to sell all the trouble of going hunting for other persons willing to deal with him. All over the world people will take gold for whatever goods they have to sell, and consequently money has

THE WORLD'S ACCUMULATION OF CAPITAL.

come to be what economists call a medium of exchange, a thing which everybody is ready to take for his goods, because he knows that everybody else will be ready to take it from him if he wants to buy. But it is clear that the keeping of more money than is actually required for doing the business of a country would be sheer waste. If a man, for example, buries £100 in gold in his garden, or hides it away in a box, and leaves it there for a hundred years, at the end of the time it will only be £100. Money, therefore, does not grow, and does not yield interest. The only way in which money can be made productive is by paying it either for some material which is worked up, such, for example, as wool worked up into cloth, or by paying it to workpeople and setting them to produce something that will grow and become more valuable, or by lending it to other people who will so employ it. Therefore, the keeping of more money than is actually required is a waste on the part of each individual, and consequently is a waste for the whole country, and, in short, for the whole world. Very wealthy countries which have great aptitude for business, like our own, therefore, are constantly inventing new methods for doing without money in transacting their affairs. Our banking system has been improved year after year, and most well-off people now make payments by means of cheques instead of carrying about a lot of gold and silver, of which they might be robbed, and at any rate which would be burdensome to them. So, again, people in business—manufacturers, warehousemen, and the like—transact most of their business by means of bills of exchange, generally no money at all passing. It follows that in very skilful and rich countries like England there is exceedingly little money in the pockets of the wealthy people, and even little in bankers' tills. All sorts of arrangements are adopted to avoid using more money than is absolutely necessary. And lastly, it is to be borne in mind that money is very costly. Although gold and silver are hard and do not wear out quickly, yet they do wear out in constant use. The coins in a box of sovereigns packed carefully at the Bank of England, and taken to a bank in Scotland or Ireland, kept there for a month or two without being opened, and sent back again to the Bank of England, are found to have lost weight by the mere shaking and rubbing of the coins on the railway and steam packet journey. And when a certain amount of weight is lost, the coin is no longer good. Furthermore, accidents of all kinds will happen, and coins will be lost. So it is a very great saving to avoid as far as may be the use of money.

Land is by far the largest item in the world's wealth, but its proportionate value differs greatly in different countries. In the United Kingdom it constitutes between one-fourth and one-fifth of the total wealth. It is to be recollected, however, that houses are not included in the valuation, and neither are the live stock on the

THE WORLD'S ACCUMULATION OF CAPITAL.

land nor the minerals under it. Only such growing crops, again, as have not been harvested and are still actually growing are included. Farmers' capital, taken separately from the land, is estimated at somewhat more than one-twentieth of the total wealth of the country, but in this estimate only farmers paying income tax are included. Consequently the small farmers, like those of Ireland, are excluded. The land not built upon, taken as if it were the property of landowners different from the persons who cultivate it, and valued at twenty-six years' purchase, amounts roughly to somewhat over one-sixth of the total wealth of the country. For a dozen or fifteen years, however, land has been unduly depreciated in this country, largely because of the competition of the newer communities with it in agricultural produce, and to some extent because of the unsettled state of Ireland. As, however, Ireland settles down and the newer countries fill up, all this will change. The time is not very far distant, for example, when the population of the United States will be so great as to prevent large exports of grain. When that happens, land in this country will decidedly rise in value. In 1875 Mr. Giffen estimated the money value of land in the United Kingdom considerably higher than in 1885 for the reasons assigned. It seems, therefore, safe to say that in ordinary times the value of land in this country is about one-fourth of its total wealth. In France, on the other hand, though it also has suffered from the competition of the newer communities, land is very nearly as valuable as all other kinds of property put together. It forms more than one-third and not very much less than one-half of the total estimated value, according to M. de Foville, who is regarded as the best authority on the subject. His estimate is 3,200 millions sterling out of a total of 7,200 millions, the National Debt of France being deducted from the total. In Italy, land exceeds in value all other kinds of property put together, the estimate being 1,160 millions sterling out of a total of about 1,920 millions sterling; and, except in Holland, Belgium, and Switzerland, over the rest of the Continent the value of land is not less proportionately. In Russia, for example, the agricultural population constitutes about 88 per cent of the whole; if we deduct from the remaining 12 per cent the army, the navy, domestic servants, the official and the professional classes, it will be seen that there is hardly any means of livelihood but the land, and consequently hardly any other capital. In the United States, farms are valued at about one-fourth of the whole wealth of the country; but live stock, crops, machinery, farming implements, and the like, are valued separately. According to the census returns the land actually employed for agricultural purposes, and only the land itself, constitutes about one-fourth of the total wealth of the country. When we go to the very

poor countries, land becomes more and more important. Highly civilised and very rich countries have a great variety of industries. Manufactures assume great importance, so does mining, so does shipping; and therefore the land taken alone becomes less and less the most important item in the country's wealth. But in very poor countries there is little industry of any kind—manufacturing, seafaring, or commercial—and the population lives mainly upon and out of the land. Therefore, the poorer the country the greater proportion does the land bear to the wealth of the whole country, and the richer the country the smaller the proportion. But, on the other hand, each particular acre in the rich country is immensely more valuable than in the poor country. In the United Kingdom, for example, where land constitutes less than one-fourth of the total wealth, a single acre is worth more than in any other country in the world, because for thousands of years the country has been occupied, the land has been cultivated and cared for, and all the skill of an exceptionally wealthy population has been brought to bear to improve it. Although the climate of this country is by no means as good agriculturally as the climate of many other countries, yet the average yield of an acre of wheat is with us from twenty-eight to thirty-two bushels; in many countries it is not more than eight bushels, and in some scarcely more than four bushels. In very many countries, again, especially those like our colonies, where only a small part of the land is yet occupied, the value given to the land is almost arbitrary. The land has, much of it, great natural fertility, and by-and-by it will have real and very great value; but at the present time it is lying idle and yields nothing, or at any rate yields nothing useful to man. Even in the United States there is much land that has not yet been brought under cultivation, and there is also a considerable quantity of land which has been brought into cultivation, but which has suffered from man instead of benefiting from him as the land in the United Kingdom has. For in many of the newer parts of the United States people are in such a hurry to grow rich, and know there is such an abundance of land to occupy, that they raise as many crops as the soil will yield without manuring or in any way trying to restore its fertility, and then pass on to somewhere else. In the very old countries like our own successive generations of men have added, by fertilising, draining, fencing, and so on, to the value of the land, so that it may almost be said that nine-tenths of the value is the result of human labour. In very poor countries, and especially in very new countries, man has added little to the value of the land, and sometimes has taken away from it. Taking the whole world over, it may be roughly estimated that the value of the land is not less than one-half, and probably is rather more than one-half, of the total wealth of all kinds.

THE WORLD'S ACCUMULATION OF CAPITAL.

House property constitutes about one-sixth of the whole world's wealth. Like land, its value varies very greatly in different countries. In our own country house property exceeds somewhat the value of the land, not counting farmers' capital, the land without farmers' capital being about one-sixth of the whole wealth of the three kingdoms, and house property about one-fifth. It will be understood that in house property is included not only dwellings but all kinds of houses used for business purposes—factories, warehouses, workshops, shops, offices, and so on. On the other hand, farm-houses are not included. They are not included either under the heading of land or under the heading of houses, but are included under farmers' property. The extraordinarily high proportion borne by the value of houses in this country to the total wealth will not excite surprise when the magnitude of our manufacturing industry and the cost of the factories are borne in mind. In the United States, what is called "residence and business real estate" is somewhat less than farms in value, but yet approaches nearly to them, and is not far short of one-fourth of the whole wealth of the country, so that in the United States farms and houses together amount to about half the total wealth of the country. In our own country land without farmers' capital, as explained above, and houses make up, the one about one-sixth and the other one-fifth, or say, roughly, somewhat over one-third of the total wealth of the country; with farmers' capital they make up between two-fifths and one-half of the total wealth. In France houses constitute about one-sixth of the total wealth. But in France, it will be recollected, land constitutes between one-third and one-half of the total. Therefore, it appears that the land with farmers' capital is not of much more value than the houses in our own country, is double the value in France, and does not greatly exceed the value in the United States. In France land and houses together make up about two-thirds of the total wealth of the country. In Italy houses also constitute about one-sixth of the total value, and houses and land together constitute about three-fourths, or rather more, of the total wealth of the country. Land and houses, it will be seen, are twice as important in proportion to the whole wealth in France as in England, and are even more than twice as important in Italy. And the poorer the country, and the more backward it is economically, the greater is the importance of the land and houses for the reason already given—that there is scarcely any other kind of industry but agriculture, and little trade except in its produce, and that consequently the land itself and the houses in the towns as well as the residences in the country make up almost the whole wealth. The United Kingdom is the only country in the world in which house property surpasses in value that of any other single kind of

THE WORLD'S ACCUMULATION OF CAPITAL.

property—surpasses even land, if we do not include in the latter farmers' capital. That is mainly due, of course, to the immense size of the towns in England, to the excellence of the houses, the great wealth of the people, and the vast scale upon which manufactures are carried on. But though houses in this country exceed in value any other kind of property, and land without farmers' capital comes next, both houses and land taken together and adding farmers' capital make up but little more than two-fifths of the total wealth, so varied and so enormous are the other kinds of capital. In every other country they make up over one-half, in many countries they reach three-fourths of the total wealth, in some the proportion is considerably higher still. Unfortunately there are no means of distinguishing between the value of residences and the value of business premises in the estimates of any country. In the United Kingdom, it need hardly be said, the value of the business premises of all kinds—factories, workshops, warehouses, shops, offices, and so on—is enormous, but what proportion it bears to the value of dwellings there are no means of determining. Yet it would be very interesting and instructive to know. For the business premises constitute a very large part of the capital employed in industry and trade. A manufacturer's mill, for example, represents a large part of his capital. As we go to the poorer countries the value of the business premises rapidly declines, until in such a country as Russia it tends to disappear. Hardly a million and a half of people out of about one hundred and twenty millions are engaged in industry, commerce, and manufactures in Russia. Business premises there can obviously, then, not be worth very much. Bearing this in mind, and recollecting how much more numerous are poor countries than rich, it is not matter for surprise that, taking the world over, land and houses together somewhat exceed in value two-thirds of the total wealth.

Railways constitute about one-twelfth of the world's total wealth. In the United Kingdom they make about one-tenth; but in many other countries, of course, railways are much scarcer than in the United Kingdom, and are not built with the same solidity. Other means of locomotion, such as shipping, canals, and tramways, and means of communication such as telegraphs and telephones, with docks and wharves, make up another twelfth or thereabouts, so that lands, houses, railways, shipping, canals, docks, wharves, telegraphs, and so on, make up together about five-sixths of the total wealth of the world, or not far short of it, certainly over three-quarters. The remaining one-sixth or so consists of live stock, the crops upon the land, food in granaries and dealers' hands, the raw materials of manufacture, manufactured goods whether in factories, warehouses, or shops, machinery, tools, coin, bullion, and precious stones, and

THE WORLD'S ACCUMULATION OF CAPITAL.

the furniture in houses as well as ornaments. These latter—the furniture in dwelling-houses and ornaments in houses, together with the dwelling-houses themselves—do not directly yield income. They are all the result of human labour, but they are not employed productively at the time. As we shall see immediately, however, they must be regarded as a portion of the capital of the world. In the United States census reports it is assumed that three-fourths of the average produce of agriculture and manufactures and of the imports of foreign goods are held in the country as the average supply upon hand. The United States, no doubt, is a very wealthy country. Property is more distributed there through all classes than in almost any other part of the world, and it is not improbable, therefore, that there may be a larger stock held for the maintenance of the people than in most countries. Still, it seems safe to conclude that the stock held in our own country is at least as large, and that it is also as large in other wealthy countries like France; but, of course, when we come to very poor countries, the stock held is very much smaller. For instance, we know that the failure of a single harvest last year plunged Russia into a terrible famine. It is clear, therefore, that there was nothing like three-fourths of the ordinary agricultural produce of the country upon hand. If there had been the people could not have starved. While, therefore, it is no doubt perfectly justifiable to assume that in rich countries like our own, the United States, and France, three-fourths of everything raised for food and manufactures is held as an available stock, it would certainly be an exaggeration to conclude that anything like so large a reserve is held in the poorer countries; and the poorer the countries the smaller is the margin remaining to draw upon. The people always live on the verge of distress, because they have saved little. In very poor countries, indeed, where the population is growing rapidly, the margin is exceedingly narrow, so narrow that for a month or two immediately before the harvest comes in the more destitute part of the population is always in want of food. If, then, we take the whole world over, it seems safer to assume that not more than half the total production of the world is actually held as a reserve, and even that not improbably is an exaggeration. Still, the stock of agricultural produce, in which is included not merely food but also the raw materials of manufacture, like wool, cotton, flax, hemp, silk, etc., and the like, and the live stock, including draught horses, make up, perhaps, considerably less than one-twelfth of the world's wealth. Horses are an inconsiderable item—even in this country not one-thirtieth, and less in other countries. And machinery, though important at home, counts for little in most other countries. The furniture, ornaments, and the like, in houses complete the estimate of the world's wealth. In the United States census reports the furniture

THE WORLD'S ACCUMULATION OF CAPITAL.

and the like is returned as between one-eighth and one-ninth of the total wealth. Mr. Giffen estimates the same item at nearly one-tenth of the total wealth of the United Kingdom, and the best authorities generally agree that in very rich countries the furniture, works of art, and ornaments of all kinds in houses are not much short of one-twelfth of the total wealth of those countries. On the other hand, furniture is coarser, scantier, and less considered in the poor countries, which are the great majority, and in the very poor is worth little. In the poor countries, moreover, art is little prized, and therefore little cultivated, and the general mass of the people cannot aspire to ornament. It seems, therefore, a reasonable estimate that the furniture, works of art, and ornaments of all kinds—that is to say, the movable property that yields no income—of the whole world hardly amount to one-twentieth of the total wealth of the world.

Some readers may be tempted to say that too little account is taken in the foregoing of trade and industry, that a great deal is made of lands, houses, and means of locomotion, but entirely too little of articles of commerce. Look, they may be tempted to exclaim, at the manufactures of Lancashire and the warehouses of Manchester, and is it not clear that they are undervalued? But it is to be borne in mind that we are dealing here with the whole civilised world, not with a single country, and that what is in one place a raw material of manufacture is in another agricultural produce. It is not to be forgotten that in the above there are given separate estimates for land, houses, farming, railways and other means of locomotion, and that the item now under consideration refers only to manufactures, mining industry, and commercial business, to what may be especially called commerce as distinguished from all kinds of agricultural work and from locomotion. It is further to be borne in mind that in poor countries, that is to say, over by far the larger part of the world, manufactures are yet in their infancy. They are very developed in this country; they have made considerable progress in the United States and in a few continental countries, such as France, Germany, Belgium, Holland, and Switzerland; and in a few other continental countries they are beginning to grow, and promise well for the future. But, speaking generally, they are only in their infancy in all but a few advanced and wealthy countries. Where the mass of the people live upon and out of the soil the women still card and spin, and the hand loom is likewise still active, the hand-loom weaver being half a farmer and half an artisan. Although our manufacturers supply a very large part of the world with a certain proportion of their articles of clothing, by far the larger part of the world is still supplied by domestic manufacture. It can

THE WORLD'S ACCUMULATION OF CAPITAL.

hardly be said that there is any capital distinctly employed in manufactures in such a community. The wool, for example, which is carded and spun by the women of the farming class belongs to the farmer himself, and is partially worked up by his family, and the capital, therefore, is quite as much agricultural as manufacturing. When the thread is sent to be woven it still is furnished by the farmer, and the hand-loom weaver is little more than a wage earner while working it into its ultimate form. Even the smith in such a community is generally a farmer as well as a worker in iron. Most generally the iron which he works up into horse shoes, horse-shoe nails, and the like, is furnished by the farmer, and the smith, just like the hand-loom weaver, is rather paid a wage than he is a manufacturer in the sense in which the latter word is employed in rich and advanced countries. In those very poor countries, in short, most forms of manufacture are in a very rudimentary state, and those who are engaged in them are very often farmers as well as weavers, dyers, workers in iron, workers in wood, and the like; and they are much more wage earners when they act as artisans than manufacturers in the English sense of the latter term. Another point that is to be borne in mind is that in an estimate such as is attempted to be made in the present paper of the total capital of the world, we must be careful not to count the same thing twice over. If we were dealing with our own country alone, all the capital employed, say in the cotton manufacture in Lancashire and the neighbouring counties, would be properly counted as a separate portion of the wealth or capital of the country. But it is not so when we are dealing with the whole world. The capital of a cotton spinner in Lancashire, to take an example, consists partly of his mill, partly of his machinery, and partly of the raw cotton which is spun by those employed by him. But the mill has been already included in the estimate under the heading of houses, and therefore we must not count it again as part of the capital in the cotton trade. And the raw cotton likewise has been already included in the estimate as part of the agricultural produce of the country—say the United States—in which it was raised, and in the earnings of the shipowners who have conveyed it to our own country. The spinner transforms the raw cotton into yarn; by so doing he adds a new value to the cotton, receiving a profit for himself and a wage for his workpeople. The real capital, then, employed in the spinning branch of the English cotton trade as distinguished from the capital of the country that grew the cotton, and also as distinguished from the house property of England, is represented by the difference in value between the raw cotton when landed at Liverpool and the yarn when turned out to the weaver. The weaver, again, adds a new value to the cotton. He converts the yarn into

THE WORLD'S ACCUMULATION OF CAPITAL.

cloth. In so doing he performs a very material service, but his real capital is represented by the difference between the value of the yarn and the value of the cloth, and we must be careful in estimating the capital of the whole world not to count twice over the mill, the cotton yarn and cloth, or the raw cotton. The capital employed exclusively in manufactures of all kinds is, therefore, when we look at it as part of the capital, not of a single country, but of the whole world, very much smaller than anyone would at first sight imagine. And the same is true of the capital employed in what may be called the "distributing" trades—that is, by merchants, wholesale dealers, shopkeepers, and the like. They are quite as indispensable as the manufacturers, and they are much more numerous. Manchester could never have come into existence but for the distributing trades. If everyone who wanted Manchester goods had to travel to the city itself to obtain them, the city would never have come into being. Of course, middlemen may be too numerous, and very often they are too numerous, and it is an important and a very beneficial tendency of our time to lessen the number of middlemen and so reduce the cost to the consumer. But the middleman can never be got rid of altogether, because some one must act between the manufacturer and the consumer, carrying the goods from the one to the other, and keeping them in stock until the consumer is ready to buy and pay for them. In very backward countries, and especially in only semi-civilised countries, those who carry on the distributing trades are very often nomadic. The towns are exceedingly few, they are at great distances from one another, and they are poor. The shops are small and incommodious, and as the population is scattered widely over the face of the country the itinerant dealers only rarely come into the towns. To a very large extent, then, the shopman is represented by a pedlar, and even the merchant is represented by a roving capitalist. For example, the great fair of Novogorod in Russia is frequented by merchants from almost every part of the Russian Empire and from the neighbouring Asiatic countries, and the wares that are bought at Novogorod are carried by the merchants thousands of miles away, where they are ultimately sold. But in rich and highly-civilised countries great fairs tend to pass away, while the travelling merchant becomes a capitalist as important and as wealthy as the manufacturer. The pedlar, too, disappears, towns multiply, and even the villages are supplied with shops.

WEALTH OR CAPITAL.

It may be objected here that the foregoing is a catalogue of the world's wealth, not an analysis of the world's capital, and that there is a broad distinction between wealth and capital. Undoubtedly

THE WORLD'S ACCUMULATION OF CAPITAL.

there is a distinction in words. Everything which has a value is wealth, but only that part of wealth which is employed in producing new wealth is capital—capital, that is to say, is wealth productively employed. But, although in words it is easy enough to draw the distinction between capital and wealth, in the actual living world it is impossible. For example, land, speaking generally, is used for productive purposes. From the land comes everything which man makes useful to himself with the exception of fish and one or two other things. For every other kind of food, everything that we spin and weave either for clothing or for ornament, all our fuel, and every kind of mineral—all are either raised from the soil or out of the bowels of the earth. Yet wealthy people—great noblemen, country gentlemen, and great merchants—keep large tracts of land either for mere ornament, as pleasure grounds, or for sport, as deer forests and the like. At first sight everyone would say that land is capital because it is the source of all wealth, and affords employment to so large a proportion of the inhabitants of the world; yet, as we see, there is a good deal of land that is not used to produce anything except mere amusement. But of course the great nobleman may replace his deer by sheep, or may turn cattle in upon his parks to graze, and thus he may make his deer forests and his pleasure grounds once more productive. So that it would be impossible for anyone to say whether a certain piece of land is capital or not until he knows how it is actually employed, and even then, if it is not capital at the moment, it may be turned into capital immediately afterwards. Again, one would say, at first sight, that a dwelling-house is not capital, since it has been erected for the mere purpose of giving shelter, not of giving employment. But it is to be recollected that great capitalists invest immense sums of money in building houses, which they let to others for occupation, and that the very same house is capital to the owner and not capital to the occupier. Even more readily one would say, at first sight, that furniture is not capital. Of course, in the upholsterer's shop it undoubtedly is capital. It is out of the furniture the shopkeeper makes his profit. But when once it is bought and put into a dwelling-house it would be said off-hand by almost everyone that it ceases to be capital. Yet the private owner of furniture may take a bill of sale upon it, and may invest the proceeds either in starting a little business or in paying workpeople to make what brings him in a profit. From these and other examples that might be given it will be seen that it is impossible to lay down any hard and fast rule distinguishing one kind of wealth as capital and another kind as not. Every piece of wealth that exists in the world may be employed as capital or may not, and very many kinds of wealth are capital at one time and not capital at another. In a paper like the present, then, all that can

THE WORLD'S ACCUMULATION OF CAPITAL.

be done is to give the best estimate that can be framed of the total wealth of the world, and to point out that, though much of the wealth is not used at the same time as capital, it all can be turned into capital if the occasion arises; and, furthermore, to show that the very same article of wealth may be capital to one man and not capital to another at precisely the same moment. Nor must it be forgotten that even dwelling-houses with the furniture and ornaments they contain, which belong to the occupiers and are not mortgaged, and which therefore of all kinds of wealth may be classed as not capital, yet represent capital outlay. They were all built, or made, or obtained by the expenditure of past savings and of human labour.

RANK OF CAPITALIST COUNTRIES.

FROM the table given above the United States would appear to be about one-fifth richer than the United Kingdom, and very much richer than any other country. As a matter of fact, however, the United Kingdom and the United States are about equally wealthy. The figures given only apparently contradict this. Rightly to understand those figures two things have to be taken into consideration. The first is that the estimate for the United Kingdom is for 1885, and the estimate for the United States for 1890, or five years later. In five years the accumulation of capital in countries so rich as our own and the United States is enormous. Mr. Giffen estimates that between 1865 and 1875 capital accumulated in the United Kingdom at the rate of about 240 millions a year, whereas between 1875 and 1885 the rate was only about 150 millions a year. The slower rate in the latter decade is due to the great fall of prices that then took place. It need hardly be pointed out to the intelligent reader that every valuation of property must depend upon prices. The basis for the valuation is either the income which is capitalised at a certain number of years' purchase, or the selling price in the market of similar things. In either case prices regulate the conclusion. If, for instance, wheat was worth at one time 40s. a quarter and fell at a subsequent time to 30s. a quarter, it is clear that the farmer could pay a much higher rent in the former period than in the latter; and it is equally clear that if the rent was higher the capital value would be higher also. Naturally, therefore, all valuations—which, it will be recollected, are valuations in money—must be based upon money prices. It may be objected that a field of wheat, which yields on an average thirty bushels to the acre, is equally valuable whether the price of wheat be 30s. or 40s. per quarter, for it is capable of feeding exactly the same number of persons. But while that is true it does not affect the question of valuation, which is a *valuation in money*, and the thirty bushels per acre of wheat would fetch a smaller

THE WORLD'S ACCUMULATION OF CAPITAL.

amount of money when wheat is selling at 30s. than when it is selling at 40s. per quarter. Between 1875 and 1885 there was a great fall in prices, and naturally, therefore, there ought to be a great reduction in valuations. Consequently, when the estimate was made out of the general wealth of the United Kingdom in 1885, the rate of growth seemed to be much slower in the ten years from 1875 than it had been in the ten years immediately preceding. But between 1885 and 1890 prices rose—in some cases they rose very considerably—and if an estimate on the same lines of the wealth of the United Kingdom had been made in the latter year it would have been greatly higher than in 1885, not only because the savings during the five years were on an enormous scale, but because also prices generally were higher, and therefore all kinds of property would be valued higher. It seems safe, therefore, to assume that the rate of accumulation of capital in the five years from 1885 to 1890 was not much under 200 millions per annum, and if so the estimate for the United Kingdom in 1890 would be about 11,000 millions sterling. The second consideration to be taken into account is that a large part of the wealth of the United States is owned by people resident in the United Kingdom. How much is so owned nobody has ever been able to ascertain, and indeed no serious attempt has ever been made to find out. All that is certain is that for generations the British people have been investing on an immense scale in the United States. They have lent to the Government, to the several states, and to the municipalities. They have supplied a large proportion of the capital spent in building railways and the like. They have bought breweries, cattle ranches, houses, and so on. Now, properly, all this property owned in this country but situate in America ought to be deducted from the wealth of the United States and added to that of the United Kingdom. If this were done, it would be seen that there is very little difference between the wealth of the two countries. Moreover, it is not to be forgotten that continental peoples have invested very largely in the United States—to nothing like the same extent as English people, it is true, but still immense sums. Especially the Germans and the Dutch have done so. The continental investments in the United States should also be deducted from the wealth of the United States; and if this were done, it would probably turn out that the United Kingdom is the richer country of the two. When dealing with the wealth of all the world, taken as one great community, it was not necessary to enter into this question of debt and investment; the point to be arrived at was the total wealth of the world. Where it was owned was a matter of no importance; but when we come to compare country with country, it becomes a matter of much importance. It may be said that the capital, wherever owned, is employed in the United States, and that

THE WORLD'S ACCUMULATION OF CAPITAL.

that is the main point. But it must not be forgotten, firstly, that the profits are due to Europe, and secondly, that the capital itself or what is equal to it, may be brought home.

The large investments made abroad by the British people give them a great advantage, in the matter of capital, over the Americans. Not only have immense sums been lent to the United States and laid out in constructing railways and acquiring properties there, but the same thing has been done in nearly every other country. Everybody will remember how immense was the outlay in the Argentine Republic a few years ago, and how disastrous some of the investments have proved. The whole of South America, in the same way, has been more or less furnished with capital from this country. All our colonies, likewise, have been settled and built up with British capital. The investment of British capital in India has been on, if possible, a greater scale; and though in China and upon the Continent our ventures have not been anything like so great, still they have been very considerable. Perhaps it would be more correct to say that at one time they were quite as great, if not greater, but that in such countries as Turkey and Spain they did not prove profitable, much of the money advanced having been lost; and that gradually the British investor has withdrawn from the Continent as opportunity offered. In Egypt, again, a great deal of British money has been sunk. Many of the investments in these various countries have proved exceedingly bad, but many have also been highly profitable, and the income derived from these various investments is enormously great. Hitherto the United States has required not only all native capital for its development, but all the capital that could be got from other countries; and therefore there is no great item of "investments abroad" in the United States estimates, such as must figure conspicuously in every estimate for our own country. A second advantage in regard to capital the people of this country have over those of the United States is their vast mercantile navy. Since the great Civil War there has practically been hardly any American shipping engaged in the foreign trade of the country. Almost all the trade between the United States and other countries has been carried on in foreign vessels, and especially in British vessels. British shipping is engaged largely in every other country's trade, and the earnings of our shipping are enormous. It gives employment directly and indirectly to multitudes of men, and it yields a very handsome profit to its owners. What is called the coasting trade of the United States is carried on by American shipping, and the coasting trade is a very important one, for the coast line is immense; indeed, the distances between the ports are sometimes greater than the distances in the foreign trade. For instance, the sea-borne trade between New York and San Francisco is a coasting

THE WORLD'S ACCUMULATION OF CAPITAL.

trade, and yet the distance is practically as great as between Liverpool and San Francisco. The American coasting trade is, then, no doubt profitable, still it does not in the least compare with the shipping profits of the United Kingdom, which are derived from the trade of almost every country in the world. A third advantage in respect to capital which the people of this country have over those of the United States comes from their vast accumulation of greatly superior machinery. It is this, in fact, which gives to our country its admitted manufacturing and commercial pre-eminence. The Americans are our near kinsmen, and it would be vain to deny them as much intelligence, enterprise, and business capacity as we possess ourselves. Their workpeople probably, too, have as much skill; for, speaking generally, they have come from this country, and the American employer can always recruit the ranks of his workpeople from the best of our own. But machinery as great in quantity and as efficient in working the Americans do not possess, and are not likely to accumulate for many years to come. This is the kind of capital in which we excel, and in which we may reasonably hope that we shall continue to excel for a long time to come. Our machinery is always increasing, and is always being improved by new inventions and adaptations. All through the century the Americans have been striving to rival us in manufactures. No doubt they have made very great progress, but they are still very far behind us. The greatest progress has been made in the iron and steel trades. So late as twenty years ago the greater part of the iron required for constructing American railroads was obtained in this country. Even in 1879 there were large purchases of British iron. But now the output of pig iron in the United States is larger than that in the United Kingdom, and the United States produces all the iron required at home, not only for railways but for everything else. Still, even in the iron trade the Americans are our inferiors. They cannot compete with us in the free markets of the world, as is proved by the fact that they do not export iron. There has been a considerable growth also in the cotton trade, but the Americans are even more inferior to us in that industry than in the iron and steel trades. The United States is the greatest producer of cotton in the world. Not only is the American cotton crop greater than that of any other country, it is better in quality. Close to the cotton region, too, are rich coal and iron fields, and, as we have said, the Americans are our own near kinsmen with our own aptitude for business and go-ahead qualities; and yet Lancashire can import American cotton across the ocean, manufacture it, and sell it all over the earth, while the Americans cannot—cannot even completely supply themselves. This is mainly owing to our superiority in machinery. It would not only be vain but foolish to

THE WORLD'S ACCUMULATION OF CAPITAL.

flatter ourselves that either as a nation or individually we are superior to the Americans in business qualities; but our command of disposable capital, and especially our possession of such immense masses of the best machinery, give us an unquestioned superiority over them. In other manufactures the inferiority of the Americans is even more pronounced. No other manufacture has attained any great development, although, of course, manufacturing industry is very various, and is constantly pushing forward in new directions. On the other hand the Americans have, as regards capital, an unquestionable superiority over us in the vast extent of their territory, the immense area still unoccupied, and the still more immense area which, though occupied, is only partially cultivated. Roughly, the United States is about the size of thirty Great Britain and Irelands. Its climate ranges from extreme cold to sub-tropical. Its soil is of every variety of fertility, from the very richest in the world down to the very poorest. It produces, therefore, almost everything useful to man. For a long time it has been the granary of the world, supplying Europe with what food she needs when her own harvests are insufficient, and not a little also of the raw materials of manufacture. Her agriculture is improving with marvellous rapidity, and the time cannot be far distant, therefore, when America will far outstrip all other countries in wealth. But up to the present, though her agriculture has improved so much it is yet very backward. The yield per acre is trifling compared with the yield in this country, though climate and soil are naturally so much superior. In the near neighbourhood of the towns even now cultivation is carried on on European methods. The towns are growing at a wonderful rate, both in numbers and in size, and as they grow the value of the land all round must rise both for residential purposes and for market gardening and dairy farming purposes. But away from the towns the system of husbandry is still quite backward. Very often the cultivator does not care to manure; he prefers to exhaust the natural fertility of the soil, and then pass on to another district. Even when settlers have fenced and built they do not fertilise as might reasonably be expected. But the population as yet is very thinly scattered over the surface of the country. It is growing, however, every year at the rate of nearly a million persons. The time is not far distant, therefore, when the whole land will be settled, and when once that comes about the mode of cultivation must be improved, or the country very soon will not raise enough to feed its own people. Considering the vast area the capital value of United States land is quite trifling. In fact, if we add farmers' capital to the landowners' interest, the land at home is worth as much, or nearly as much, as the land in the United States. But while this is true, it must not be forgotten that the

THE WORLD'S ACCUMULATION OF CAPITAL.

growth of agriculture in the United States has very materially depressed the value of land in the United Kingdom. Land rose rapidly in value here at home up to about 1875; since then it has been falling in value, mainly because of the competition of the United States, which provides us with so much of the food we now consume. The vast area of the United States, therefore, not only raises out of all proportion the capital value of the total wealth of the country, but it depresses the capital value of the land in the United Kingdom. The house property is comparatively less valuable in the United States than in the United Kingdom, because the population of England is becoming more and more every year an urban population. But the towns in the United States likewise are growing very rapidly, and apparently will grow still more rapidly in the future; and therefore the valuation of houses will steadily tend upward in an increasing ratio. Land and houses together will every census for a long time to come assume a greater and a greater preponderance in the total value of the country. On the other hand, land will not rise in anything like the same way in the United Kingdom, though it will rise considerably as American competition becomes less keen. But house property will certainly rise, for the towns will grow as rapidly here as at the other side of the Atlantic; and we have every ground for hoping that our trade and manufactures will grow still more rapidly.

If the estimate for our colonies were to be added to that for the United Kingdom, Greater Britain would be seen to be far richer than the United States, and in the future it will probably grow even more rapidly. Mr. Coghlan, Government Statistician of New South Wales, estimates the private wealth of the Australian colonies, Tasmania and New Zealand, at 1,170 millions sterling; and in the estimate the unoccupied land and the public works are not included, which would raise the estimate immensely. If we add the other colonies in America and Africa, it will be seen that the British estimate would greatly exceed the American estimate. But at the present time, though the colonies form part of the British Empire, they are so far separated from the United Kingdom that they cannot be included in an estimate of the kind. If, however, Imperial Federation is ever carried out—if, that is to say, the whole of the colonies with the mother country are represented in one great Imperial Parliament, and safeguards are taken that there never shall be a separation between them—then the whole would become one unit like the United States; and in that case the present capital of "Greater Britain" would certainly exceed the capital of the United States, while the area of unoccupied land would be immensely greater, and the margin for growth almost illimitable. Putting aside, however, the question of Imperial Federation, it will

THE WORLD'S ACCUMULATION OF CAPITAL.

be seen how immensely superior, from an economic point of view, are the English-speaking peoples to any other race in the world. Taking the United Kingdom and its colonies with the United States, it is hardly an over-estimate to say that they have a capital not very far short of half the capital of the whole world; and it is reasonably certain that their capital will grow far more rapidly in the future than the capital of the rest of the world put together because of their greater skill, enterprise, and industry, of their higher inventiveness, of their vastly superior machinery, and of their boundless reserves of unoccupied land.

CONTINENTAL COUNTRIES.

FRANCE ranks third amongst capitalist countries, but far behind the United Kingdom and the United States. The French estimate is by M. de Foville, of the Finance Department, and if we strike out the National Debt—which is not included in the English estimate—the total wealth of France is less than three-fourths of the total wealth of the United Kingdom; and although the accumulation of capital in France is very rapid, it is much slower than in the United Kingdom. The first great cause is the stationariness of the population in France. The census taken every five years, it is true, shows a slight growth in population; but as there is a large immigration from the neighbouring countries, it may be doubted whether the real French population is growing at all. No doubt this tends to make the existing population more comfortable, but it tends to check production also. Furthermore, there are few great towns in France compared with any other country of equal or nearly equal wealth. The very great towns are growing rapidly, but the very great towns are few. France, moreover, is not a great manufacturing country. In one or two manufactures she is eminent, and she holds a very respectable place in others; but neither in the present, nor, as far as can be judged, in the early future, is she likely to hold a really commanding position. Furthermore, the French population being almost stationary, there is no outflow to the colonies. Algeria offers very great attractions indeed to the French colonist, but Algeria is not settled by Frenchmen, and apparently never will be; and as for the distant colonies, they are mere dependencies held by military force, and nothing else. Neither at home nor abroad, then, is the French population growing, and France gradually and slowly is sinking consequently in the scale of nations. But the French people are so industrious and so thrifty, the soil is so fertile, and the climate is so fine, that France always must remain a great country. As in the United States, her economic greatness depends firstly upon her land; indeed, the land forms a greater part of the wealth of France than of the wealth of the United States. But the land of France is

THE WORLD'S ACCUMULATION OF CAPITAL.

so divided amongst peasant proprietors that there does not seem much probability of a very rapid or very great increase in its value. The value, of course, will rise as it has risen immensely during the past twenty years, but it is not likely to rise very rapidly. Like the United Kingdom, on the other hand, France invests very largely in other countries. The people of all classes are not only industrious, but exceedingly thrifty. They save considerable sums every year, and a very large part of their savings are invested abroad. Unfortunately, too much perhaps is lent to governments, but a very considerable proportion is also employed in useful public works of all kinds, thereby supplying other peoples with the means of developing their resources. France has not anything like the same amount of investments abroad as England, but she derives a very handsome income from her investments. On the other hand, she has not a great accumulation of machinery as this country has, naturally because she is not a great manufacturing community. And neither has she a great mercantile marine. France has a very extended seaboard. On the north, on the west, and for the greater part, too, upon the south she is bounded by the sea. But for all that the French do not take kindly to sailing, and consequently there is employment for a very large British tonnage in the French trade. At the same time, France does not take a leading place in the foreign carrying trade of any other country.

Germany may be bracketed along with France, just as the United States may be bracketed along with the United Kingdom, as roughly having about the same amount of capital. The population of Germany is much larger than that of France, and it is growing more quickly. The people, therefore, are not stay-at-homes, like the French. They push into the towns; they swarm over the frontiers into France, and even Russia; they cross the sea to England and the United States. Everywhere they are energetic and enterprising. The towns are increasing very rapidly in size, trade is being developed in various directions, and the mercantile marine is very large, although the German sea coast is quite short; indeed, Germany has a sea coast only upon its north. In spite, however, of the shortness of the coast and the fewness of good harbours, the mercantile marine has grown very rapidly during the past half-century. Manufactures are more various than in France, and there is a greater spirit of enterprise. But, on the other hand, the soil cannot be compared for richness to that of France. And neither can the climate. Moreover, Germany has no colonies, and therefore no vast reserve of unoccupied land. True, she is at present trying to found colonies in Africa, but as yet, at all events, her people show no inclination to settle in them. German emigrants prefer the United States and the British colonies, and their success consequently

THE WORLD'S ACCUMULATION OF CAPITAL.

augments the wealth of the English-speaking communities, not of the German Fatherland. On the other hand, Germany of late has become a very considerable investing country. Belgium and Holland are both very rich and enterprising states, considering the smallness of the area of both and of their population. Belgium is the more enterprising. Its manufactures of all kinds are growing more rapidly. But Holland has more accumulated wealth, especially wealth derived from old investments in foreign countries. She has a very respectable mercantile marine too, and a considerable colonial empire. No other European country has made much progress commercially or industrially. Italy and Austria have taken the first steps, and in the future, no doubt, will develop their industries very considerably; but as yet both must be regarded as practically agricultural. Russia, too, has made great efforts to found various industries, but the unwise prohibitive tariffs imposed have disappointed the expectations of the Government, and the progress is slow and by no means assured; the country remains mainly agricultural to this day. There are very few towns; there is little intelligence and less enterprise. Unfortunately, too, agriculture, upon which almost the whole population lives, is suffering grievously from the mistakes made at the time of the emancipation of the serfs from the weight of taxation, and from the system of ownership. The very richest part of the empire—that which used to supply other provinces with a large proportion of their food, and which over and above used to export to the rest of Europe immense quantities—has been plunged into famine by the failure of a single crop, which seems to prove exhaustion of the soil, in that part of the empire at all events. It is doubtful whether there has been any material growth in the capital of Russia during the past ten years. But the Russian Empire covers about one-eighth of the whole land surface of the globe. If its government could be really reformed, if the intelligence of its people could be considerably raised, and if it could be held together, it must become one of the richest States in the world, because of the immensity of its area and the vastness and variety of its undeveloped natural resources.

Compared with the numbers of the population, Australasia—that is, Australia proper with New Zealand and Tasmania—stands at the head of all the world as concerns wealth. According to Mr. Coghlan, Government Statistician of New South Wales, that colony is the richest of all, its total wealth being equal to about £368 per head of the population. South Australia comes next, and Victoria only third. And for the whole seven colonies of Australasia, supposing it were possible that an equal distribution of the capital could be made, it would yield for every man, woman, and child about £309. But it is to be recollected that, as already pointed out, a very

THE WORLD'S ACCUMULATION OF CAPITAL.

large proportion of this capital is owned in the United Kingdom. The British people have lent immense sums to the several colonial governments, to the town corporations, and other public bodies; they have practically supplied the means for building all the railways, and most of the other public works. British capital also has founded the banks of all kinds, and advanced to them the greater part of their deposits. The banks have mortgaged a very considerable proportion of the lands and houses, and even the wool and other produce exported are largely the property of the banks. In reality, then, a considerable part of the nominal capital of Australasia is owned in this country, and ought to be deducted, therefore, from the capital of the former and added to that of the latter. It is highly probable, then, that per head of the population the United Kingdom is richer than Australasia, and it is reasonably certain that England alone—that is, leaving Scotland and Ireland out of account—is richer than any colony of Australasia. According to Mr. Giffen's estimate, the total wealth of the United Kingdom was equal to about £270 per head of the population in 1885. Ireland and Scotland are included in the estimate, which for England alone is very much higher. If we deduct from the Australasian colonies all the capital that is owned here at home, it is evident that England, head for head, has a larger capital, and it is not improbable that even the United Kingdom has at least as large. After the United Kingdom and Australasia, France stands third in relation to capital per head of the population. It is equal to about £220 per head. The United States stands fourth, about £200 per head; but, as already pointed out, a very considerable part of the capital of the United States belongs to residents in the United Kingdom. Much of the capital of the railways and other public works, and not a little of the land and houses, are owned in this country; a much smaller proportion is owned on the Continent. The real capital of the people of the United States is, therefore, not equal to £200 per head; indeed, it is evident that the wealth per head must be much less in the United States than in the United Kingdom, since the aggregate wealth of both is about equal, and the population of the United States exceeds that of the United Kingdom by about 60 per cent. At first sight this may seem strange, so much do we hear of American wealth and of American millionaires—railway kings, silver kings, and the like. But in reality the number of great millionaires in the United States is small. The characteristic of the United States is that capital is more widely distributed than in most other countries. There is not either the extreme wealth or the extreme poverty found in so many European countries, and especially in our own. The vast majority of the people have a modest competence, nothing more. Naturally the few very rich

THE WORLD'S ACCUMULATION OF CAPITAL.

people strike the imagination all the more on that account; they stand out from the rest of the population so distinctively. France resembles the United States in so far that there are not the extremes of great wealth and great poverty, but that capital is fairly well distributed amongst the population. The people are exceedingly thrifty, and everyone strives to lay by something for old age and for children. Holland ranks somewhat before the United States, chiefly because of the vast investments of its people in foreign countries and especially in the Dutch colonies. Canada comes immediately after the United States with about £190 per head of the population but the remarks already made concerning the United States and Australasia apply also to Canada, and indeed to all new countries. A very large part of the capital, that is to say, is owned in the country. Germany ranks after all the countries mentioned already and also after Belgium and Denmark. The capital of all the world taken together is equal to somewhat over £100 per head of the population. It will be seen that in proportion to the population the United Kingdom is about two-and-a-half times richer than the whole world taken as one community, that our colonies, France and the United States are each about twice as rich, and that England alone is about three times richer; while generally it may be said that the more advanced countries are over twice as rich as the whole world taken together, and that implies, on the other hand, that the very backward countries are considerably poorer than the average of all the world. It may be well to observe here that much of the capital of the world would lose a great part of its value if such a thing as an equal distribution of wealth could be made—which, of course, could not. For instance, costly pictures, statuary, diamonds and other precious stones would have hardly any value if there were no rich people to buy them, and most of the capital now employed profitably in producing them would be utterly lost. They are procured at great cost, and if there were none to pay high prices for them the producers would be ruined and the employment gone. So, again, grand equipages could not be kept up, and neither could the fashionable quarters of our towns. The mansions of the rich, whether in town or country, if the rich ceased to exist, and everyone had only a very modest competence, would either go out of repair or would have to be occupied as tenement houses. In the former case they would very soon cease to have any value at all, and in the latter they would have, of course, only the value of tenement houses. An immense amount of capital and employment would thus be destroyed. But the capital of the world is valued, not as it would be in an imaginary state of society, but as it is, the world being as we know it. Still it seems worth while to call attention to the fact that an immense amount of capital, giving employment to va-

THE WORLD'S ACCUMULATION OF CAPITAL.

multitudes of workpeople, exists only because, and so long as, the world is what it is. When people talk, then, of the capital of a country, or of the world, being so much per head of the population, they do not mean, if they know what they are speaking about, that it would amount to so much on an equal distribution, for it would give much less, but that there is so much to give employment to every person if productively applied.

FORMS SAVINGS HAVE TAKEN.

At first sight it may seem surprising that all the countless generations of men who have been toiling and pinching and saving since the world began have hoarded up so little either of agricultural produce or of the production of our factories. The United States Census Commissioners estimate that the average stock of these things held in the United States is only about three-fourths of the annual yield. In this country probably the average is somewhat higher, for the United States raises much agricultural produce to sell to the rest of the world, whereas we buy from the States and other countries, since even of food we do not raise nearly enough at home, and many of the raw materials of manufacture we do not produce at all. But if our average holding is somewhat higher than the American, it is certain that most other countries hold very much less than the States do. The world, therefore, cannot have at any one time a whole year's supply. But a little consideration will show that there is no real cause for surprise. In the first place, much agricultural produce is perishable, and could not be hoarded even if people wished. In the second place, if grain and other kinds of food that can be hoarded were put by year after year until the stock kept on hand all over the world rose to be two, or three, or four years' supply, it is certain that the price would fall so low that practically it would be difficult to keep on growing the grain and other things so hoarded. Even a single good harvest sends down prices materially. But if it were known that the yield of two or three harvests was actually put by, what would be the fall in prices? Lastly, the danger that the world's supply will at any time fail is exceedingly small. It may seem to some that, as the year goes on, the supply held must grow dangerously small. At harvest time it is very great, but before the next harvest actually ripens the stock, one would think, must become perilously small. But it is to be recollected that south of the equator the seasons are diametrically opposite to our own. When the people north of the line are sowing those south of it are reaping, and when the people north of it are reaping those south of it are sowing. Besides, in very hot countries, like India, though north of the line, harvest

time falls about our spring time. Therefore, there is harvesting going on in some part of the world at almost every time of the year. And so the supply is kept up at about an average while the railway and the steamship enable supplies to be sent quickly from one part of the earth to another, however distant they may be. There is no real object, then, in hoarding up agricultural produce or manufactures; while, if they were hoarded up, as they grew in bulk prices would fall, and all engaged in the business would suffer. It is much wiser and much better for the whole world that men should increase their ability to produce rather than that they should lay up what has already been produced. The prairie value of land—its value, that is, as it comes from the hand of nature—is, speaking generally, very small. Sometimes the natural soil is very rich, but more often it is very poor. It is a bog, or a morass, or a sandy valley, or a rocky hill-side, and if not improved it would hardly reward the toil of the husbandman. But when it is fenced and drained, cleared of stones and well manured, its fertility increases until oftentimes it yields many-fold what it did in the beginning. Even where the soil itself is naturally very rich, it not seldom happens that the climate is so dry that little will grow without artificial irrigation, and one of the most important works, therefore, that can be done is to bring water to the thirsty soil. So, since the world began man has been engaged in improving the land; in other words, the bulk of men's savings from time immemorial has been invested in the land itself, and has added to its value. In England as a consequence the yield of the land is double what it is in newer countries, and sometimes four times as much; and yet England has neither as good a climate nor as fertile a soil as some of those newer countries. The whole difference is due to the capital put into the land by generation after generation. Even in England there is yet room for a very great improvement in the land. In the newer countries, like the United States and Australia, the improvement of the land has hardly begun, except in the immediate neighbourhood of the towns. Very often, indeed, man's agency has injured the value of the land rather than improved it in those newer countries. The next direction in which savings have been invested has naturally been in the construction of houses. One of the very first necessities of human life is shelter from the elements, and as man rises higher and higher from the savage state he feels more and more the need for a comfortable home. It has been seen already how very large a proportion of the world's capital consists of land and houses. In rich countries like our own a great part of the house property is not intended for residence but for work; but in the poorer countries, where manufacturing has hardly begun, and where towns are few

THE WORLD'S ACCUMULATION OF CAPITAL.

and small, the business houses are of little value. It is the dwelling-houses that compose the great bulk of the house capital. The land, again, is out of all proportion higher in value than the live stock upon it, or the crops that grow or have just been reaped. They will increase in quantity, if the quality of the land is greatly improved; whereas if the quality of the land is not improved any amount of hoarding of agricultural produce would do very little good, since it would soon be used up if there was a rapid increase in population. But if the improvement of the land keeps pace with the growth of population, then food and other necessities are supplied as they are required.

In manufactures it is even more apparent that the true interest of all engaged is to increase the capacity for turning out goods, not to increase the amount of goods that are held in stock and not sold. The manufacturer simply locks up his capital, and in the end compels himself to stop working if he turns out much more than he sells. Moreover, he brings down prices, and possibly may ruin himself or some of his competitors. On the other hand, his true interest is, as his business grows, to enlarge his mill, to put in newer and better machinery, and take on additional hands. His savings thus are invested in the factory and its machinery, which constitute the main part of his capital, and what may be called his movable capital, or stock-in-trade, he turns over and over so quickly that he is continually adding to his profits. And what is true of the manufacturer is equally true of the warehouseman and the shopkeeper. If either of them hold great stocks which cannot be, or at all events are not, sold, they lock up idly a large part of their capital; whereas if they invest their savings in enlarging their premises and in pushing their business, they always keep little more stock than is needed, and so are adding to their prosperity. The true interest, then, of the manufacturer and trader, as well as of the cultivator of the soil, is not to hoard the articles in which he deals, but to invest as much of his savings as he profitably can in what may be called the instruments of production—premises, machinery, and the like. There is a limit to the amount of the world's savings that can be so invested. A large part of the surplus goes into improving the means of communication, and a moment's consideration will show that this is the very best and most profitable way in which it can be employed. Our towns could never have grown to their present size were it not for railways and steamships, which convey food to them from the remotest parts of the earth; and in the same way our manufactures never could have assumed their present magnitude if they were not kept always supplied with the raw materials by means of railways and steamships. As business is now organised, the railway and the steamer are as necessary to the manufacturer as the

machinery in his factory; and so are they to the shopkeeper, and even to the ultimate consumer. It used to be said thirty years ago that in the western parts of America it cost a load of wheat to carry a pair of shoes a wagoner's day's journey. In those parts there were then neither roads nor railways. Now a pair of shoes is carried as cheaply in the very same parts as in England. While, then, the first inducement to the husbandman is to improve his farm, to the manufacturer to increase the efficiency of his machinery, to the shopkeeper to extend his connection, the next interest of all is to cheapen the means of transport. Unless they can do that, they will very soon find that it is impossible to dispose of their increased production.

All material progress, then, consists in making more efficient the instruments of production and cheapening and quickening the means of transport. It follows that though the capital of the world exceeds £100 per head of the population, that capital mainly consists of means of production, while the stock of necessities, comforts, and luxuries is not very much more than enough to carry mankind from one harvest to another. A large stock of necessities, comforts, and luxuries, and of the raw materials of manufacture, was far more important than it is now up to about a hundred years ago, when the population of one province might starve owing to the failure of a single crop, even though in another province of the same country food was so superabundant that it was left rotting in the fields. Now most parts of the earth are so closely connected with one another by steamers and railways that the superfluity of the fortunate countries can always be carried to make up for the deficiencies of the less fortunate. But though mankind over a great part of the earth does not now live as in most countries it once did, and in a few still does, on the very verge of destitution, man cannot afford now any more than in the past to be idle. All the thrift of all those who have gone before him only supplies him with better means of producing what he requires. But he has to produce. It is quite true that in the rich countries machinery is now so efficient and so largely employed, that in very many industries a child or a woman can do the work formerly done by a man, and even a woman can produce more than several men formerly could. Therefore, in the rich countries there is more time for leisure than there used to be. And as time goes on, and new machinery is invented and the old is improved, no doubt the hours of labour will be further reduced, and the possibilities of leisure so multiplied. But that will be only because man will be able to turn out what he requires in a shorter time. In any time that we can now foresee there is no prospect that man can afford to be idle. Work is the law of our being, and as far as human foresight carries us, it will continue to be so in the future as in the

THE WORLD'S ACCUMULATION OF CAPITAL.

past. Every step forward will bring about a further abridgement of distances and a larger increase in the efficiency of machinery; it will give man, that is to say, better tools to work with, so that he can turn out what he needs in a comparatively short time. But, though his hours of labour may be shortened, he will have to labour all the same.

THE CONDITION OF THE WORKING CLASS IN GREAT BRITAIN IN 1842 AND 1892.

BY SIDNEY WEBB.

IT is, I suppose, inevitable that we should take the term of the Jewish Jubilee as an epoch for national comparisons. Fifty years, though it is but a span in a nation's life, is yet long enough to show marked changes, and the period lies just suitably on the confines between memory and history. It is not so long ago that we cannot interpret the records by the recollections of our grandfathers, nor yet so near to us that we need to depend implicitly on these alone; but a comparison between the condition of the working class in 1842 and their state in 1892 is somewhat misleading to us. Fifty years ago, in England, the condition of the great mass of the people was at an exceptionally low ebb.

If the co-operators of 1842, smarting under half a generation of failures, had called for a comparison of their time with 1792, and had obtained a fair account of the actual social life of the ordinary working man at the two periods, I believe that they would have recorded a positive decline in the standard of life of some classes of the population. And if the Spenceans or the "Corresponding Societies" of 1792 had compiled a trustworthy comparison of that troubled year with 1742, it is probable that they must have marked a similar decline. There seems reason to believe that in 1842 some large sections, at any rate, of the "dim inarticulate multitude" were in the trough of a century's decline in all that makes life worth living. Whatever had been of advantage in the patriarchal or semi-feudal relationship between social classes had passed away, without yet being succeeded by the political freedom and mutual respect of democratic organisation. The industrial independence which marked the hand industry had been in great part lost, whilst the advantages of the machine industry were as yet not universally

THE CONDITION OF THE WORKING CLASS

developed. The poor had lost the generous laxity of the old Poor Law, and had as yet scarcely gained the bracing education in independence which was the main advantage of the new. The parochial and manorial systems of local administration had in many places broken down under the enormous growth of population and industry, but the new municipalities were still in their infancy, whilst public sanitation and public education were unknown.* And whilst the worst horrors of industrial anarchy prevailed in the mines and factories, not yet subject to any effective regulation, the workman found his food rendered artificially dear by the remnants of a protective system. In almost every respect the wage earner in 1842 was suffering from the surviving evils of the old era, whilst losing all its advantages; and he was already exposed to many of the disadvantages of the new era, whilst enjoying but few of its benefits. In short, if one may trust one's impression of numerous converging testimonies, whilst 1742 shows approximately almost the high water-mark of prosperity of the farm labourers, and perhaps also of the little handicraftsmen—at any rate since the Middle Ages—1842 marks almost the lowest depth of degradation of the English rural population, and a very low level indeed in the condition of the miner and the mill hand.† And therefore, if, as we shall see, 1892 represents a great advance on 1842 in almost all respects, we ought nevertheless to accept this result without any great self-complacency. In comparing ourselves with 1842, we set ourselves an appallingly low standard, and great indeed would be our guilt if amid our huge increase in national wealth no advance were recorded.

Now, a full examination into the condition of the working man in 1842, compared with his position to-day, would require not only far more knowledge than I possess, but would also take up the whole "Annual." All that I can do is to give my own general impression on the subject, and add a few of the many facts which could be cited

* Lord Beaconsfield's novel, "Sybil, or the Two Nations," gives a good idea of some of the horrors of this period, as Mrs. Gaskell's "Mary Barton" does of the poverty of Lancashire. Engel's "Condition of the Working Classes in 1844" (Sonnenschein, 1892) is a contemporary picture of the time, largely compiled from official reports.

† Nothing is more difficult than to estimate fairly the comparative well-being of a whole community at different periods. It seems probable that in 1742 there was, beneath the great landlord class, a nearer approach to social equality than has since prevailed. The middle class, whether commercial or professional, had not yet become markedly distinct from that of the wage earners. The great fortunes of the manufacturing industry were as yet unknown. The industrious apprentice still married his master's daughter, the clergyman the cook, and although life was rude and hard, it had, perhaps, with its yearly bonds and customary wages, more permanence and regularity than has since been possible; and with its hand industry, more industrial independence.

IN GREAT BRITAIN IN 1842 AND 1892.

in support of that impression.* Bad as one is sometimes tempted to think the present condition of the people, it is clear that, on the whole, there has been an enormous advance since 1842. In the great mass of trades, and in nearly all places, money wages are much higher, and the workman obtains a far larger supply of commodities for his labour than he did fifty years ago. In most cases the hours of labour are shorter, the conditions of work are better, and the general standard of life has been greatly raised. The house accommodation, both in town and country, is much improved; the sanitary conditions have often been revolutionised; education, of course, is not only far more general, but is also far more extensive; whilst such opportunities for culture as libraries, museums, art galleries, music, and healthy recreation are much more accessible to the working man than they ever were before. In a word, the great bulk of the population are far more civilised than they were fifty years ago. Cruel as is our industrial system, life in England is in nearly every respect much more humane than it was. The evils which still exist must not blind us to the progress that has been made. So far the panegyrics of the optimistic statisticians of our time are justified.

WAGES.

It is unnecessary to say very much about the general rise in money wages which has taken place since 1842. There seems no reason to doubt the general accuracy of Mr. Giffen's conclusion that the rise in nearly all trades has been from 50 to 100 per cent.† But this general rise has not taken place without numerous ups and downs in good and bad times, the details of which for particular trades and in particular localities would well repay study. In this article I can do no more than present one or two "curves," showing in a graphic manner the actual course of money wages in two or three instances for which exact statistics are available. In some of the building trades, for instance, wages have in certain localities actually doubled during the present century. The son of a carpenter in Scotland told

* The Queen's Jubilee produced a number of "Fifty Years Retrospects," to which reference should be made by those studying the subject. Of these, Mr. Giffen's two essays on "the Progress of the Working Classes during the last half-century" (in his "Essays in Finance," second series, 1887) contain the best survey of the economic facts, presented in a somewhat too optimistic way. Mulhall's "Fifty Years of National Progress" contains a mass of statistics. Cudworth's "Condition of the Industrial Classes of Bradford and district" (Byles and Co., Bradford, 1s.) gives a very useful comparison of Yorkshire life. A more general survey is taken in Mr. Besant's "Fifty Years Ago" (Chatto and Windus), which contains a mass of interesting particulars as to the social condition of the nation, but is untrustworthy upon economic facts.

† See Mr. Giffen's two papers on "the Progress of the Working Classes in the last half-century" ("Essays in Finance," second series, 1887, pp. 365-409).

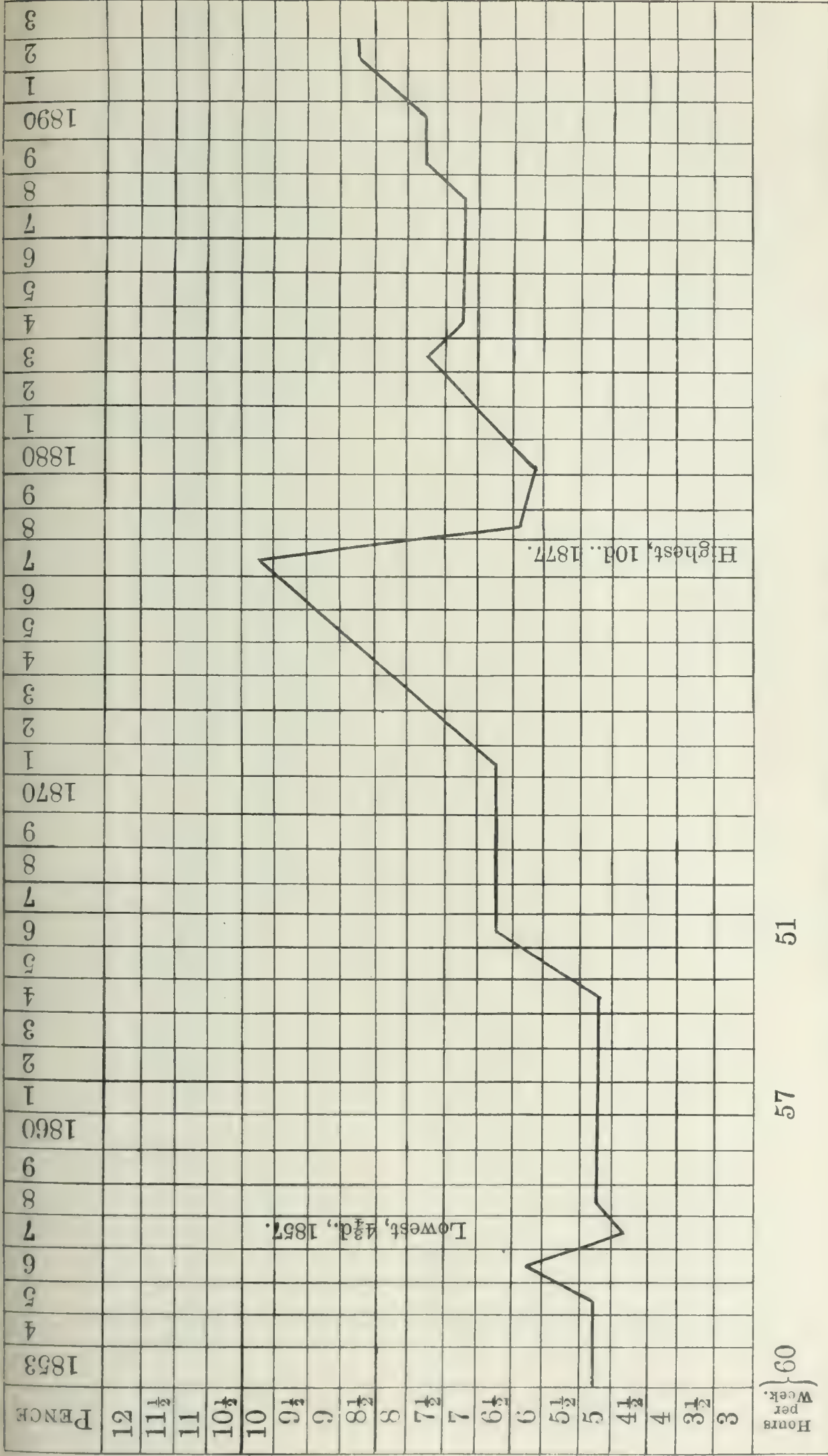
THE CONDITION OF THE WORKING CLASS

me that he remembered his father, about 1850, regularly bringing home 34s. 6d. as his wage—not for one but for four weeks' work, the system of monthly pays not yet having been abolished. It is true that this was in the neighbourhood of Inverness, but I mention the incident to recall the fact that wages have often risen most in obscure nooks and corners of the land, which have been opened up by those great levellers of wages and prices—railways and the postal system. But even in Glasgow the minutes of the energetic Joiners' Union show that it was fighting hard, between 1833 and 1837, to get a standard rate of 21s. per week, as against 36s. at the present day. Stonemasons at that time were at about the same level. The following curve of stonemasons' wages in Glasgow shows the progress of the trade from 1853 to 1892—from 5d. an hour to 8½d. The sudden tumble after the exceptional prosperity of the Glasgow building trade in 1877 will remind Scottish co-operators of the disastrous year that followed the City of Glasgow Bank failure in 1879, which wrecked nearly every working class organisation north of the Tweed, and filled the Mitchell Library with clerks out of work. Or, if we turn to another industry, we may trace in the annexed diagrams the wages of enginemen and banksmen in a small colliery in the Lothians, from their level of 11s. to 12s. a week in 1831, sinking to 9s. 6d. in the very bad year 1844, and rising to 23s. 4d. in 1872. The latter year represents a high level for all labour connected with coal mining, but the engineman's 23s. 4d. in 1872 has further risen in 1892 to no less than 33s. 3d. per week.*

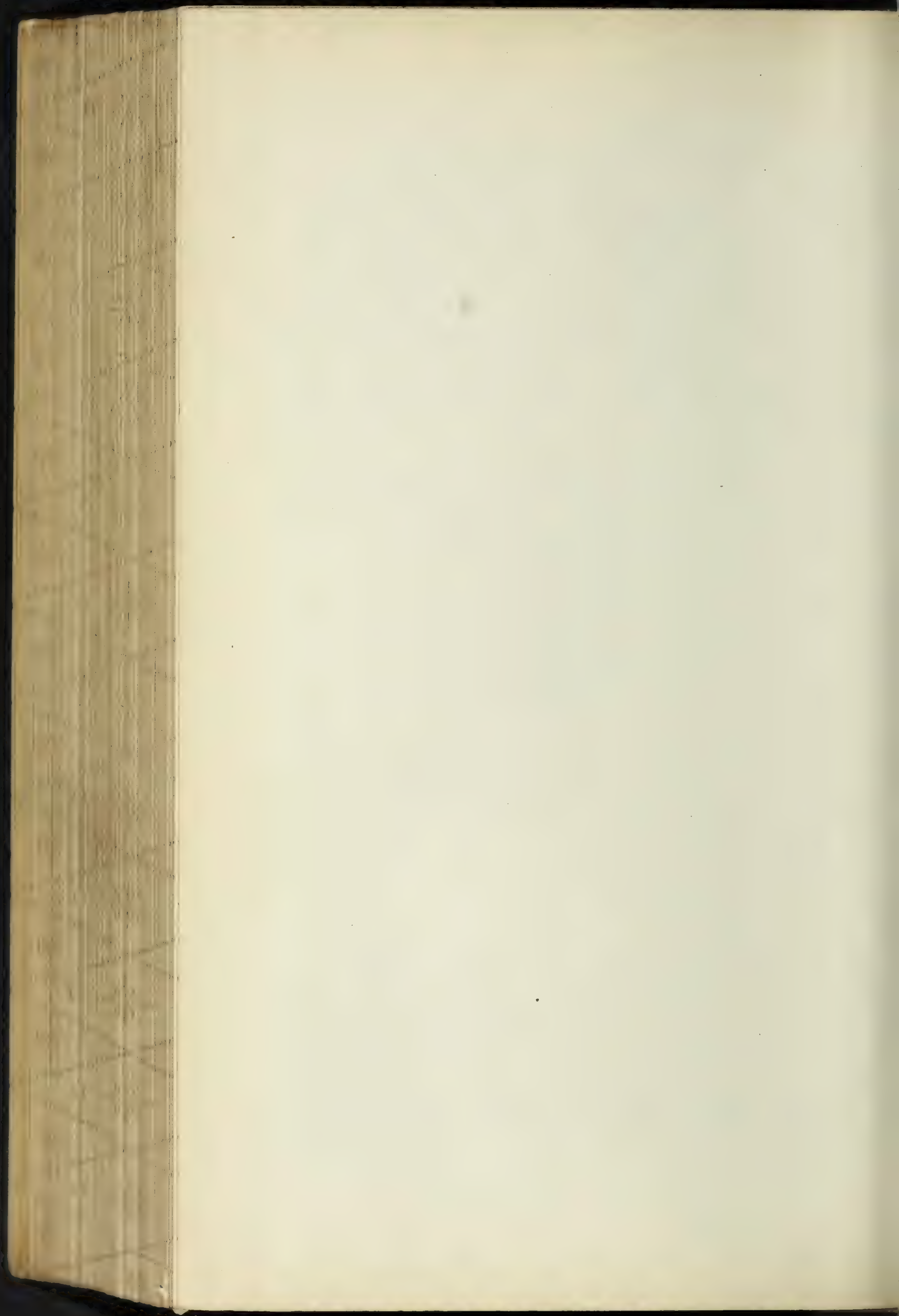
The compositors, too, may be said to have in many places actually doubled their money wages during the present century. In Edinburgh, for instance, in 1803 the average earnings of compositors in eleven of the best printing offices of the city varied from 13s. 9d. to 17s. 11½d. per week, the rate being 3½d. per 1,000. The "Interlocutor" of 1805—an order of the Court of Session fixing a scale of piecework rates—raised the average earnings to about 20s. 3d.; but from that time until 1861 no advance was made on these rates, and the average earnings of men at piecework in book printing establishments seem positively to have declined during these years. But in the meantime the "'stab" system has greatly increased in the city, and 'stab wages had risen from 21s. in 1833 to 26s. in 1861. Edinburgh has never been a "good" city for compositors, but the rate per 1,000 is now 6¾d., and the minimum weekly wage of men on the establishment is now 32s. 6d.†

* The banksmen in this colliery are now paid by tonnage, and later comparisons would in their case be difficult and uncertain.

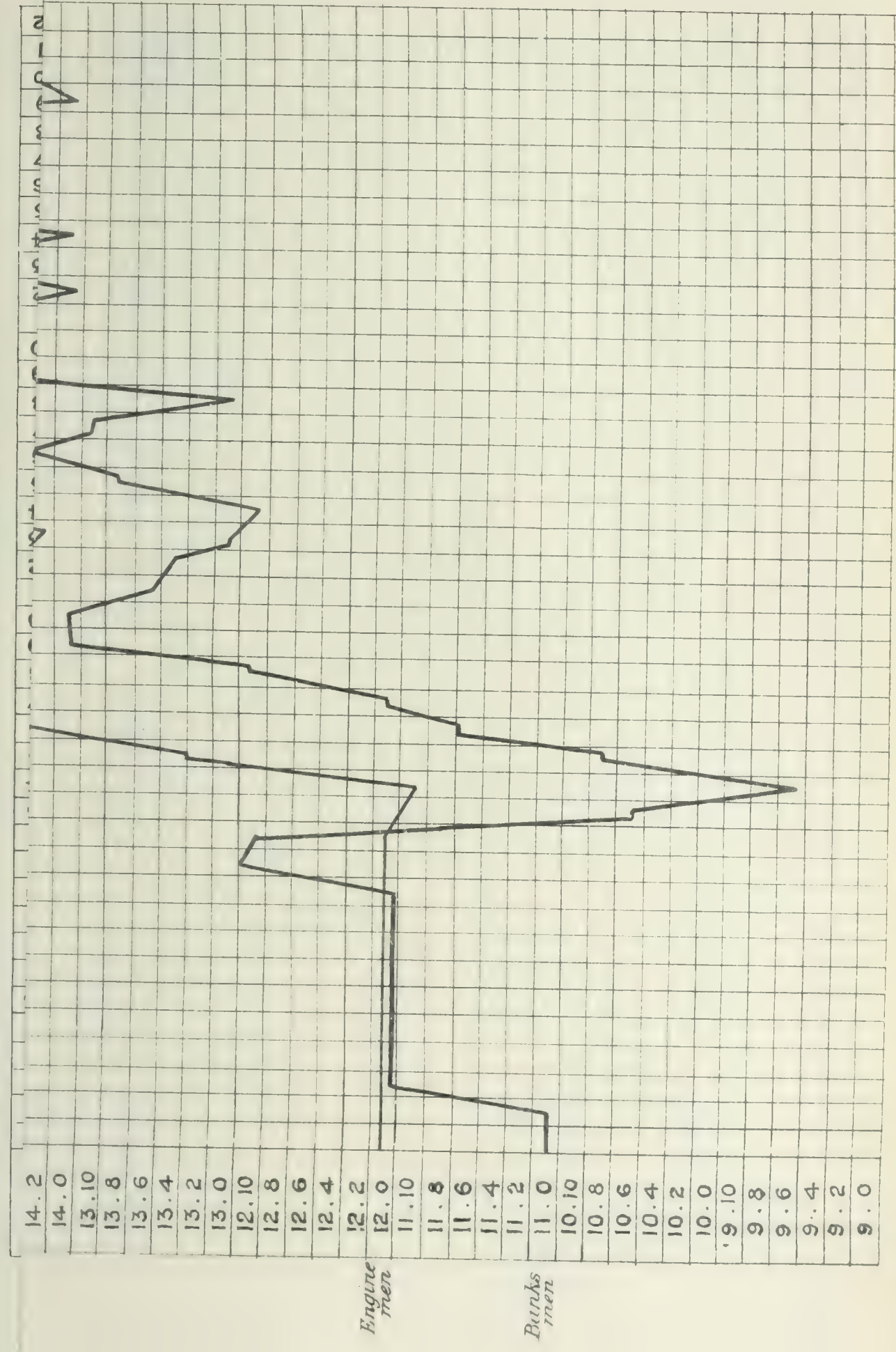
† It may be added that the method of computing piecework per 1,000 ens is said to have been introduced in London in 1774, when the rate was 4d. (Edinburgh being 3d.). By 1785 the London rate had advanced to 5¼d.; in 1861 it was 6d.; and at present it is 8½d.



Prior to 1853 the wages were 20s. to 21s. per week of sixty hours.

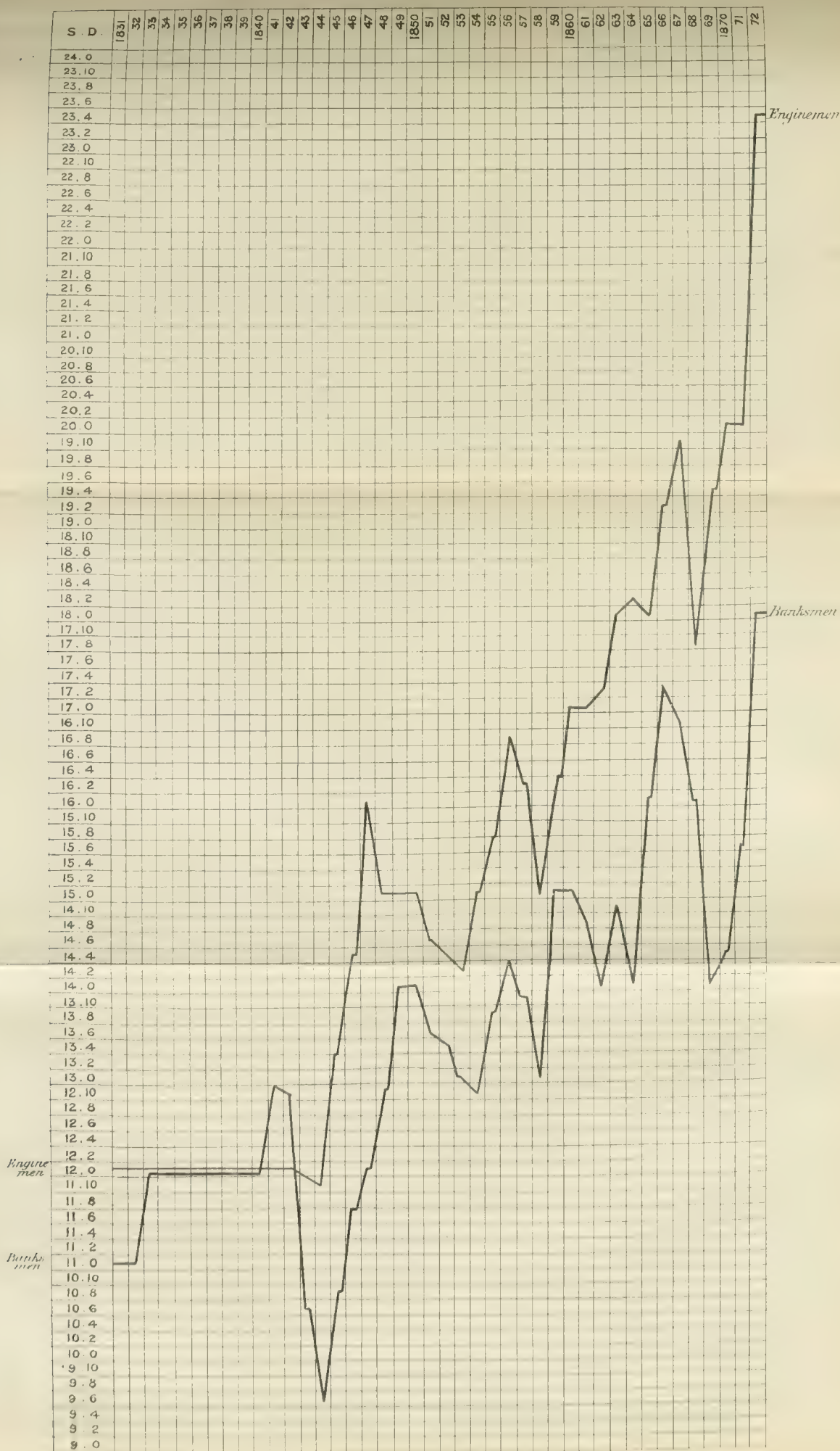


DURING EACH YEAR FROM 1831 TO 1872 INCLUSIVE.



Average Weekly Wages of Banksmen and Enginemen at a small Colliery in the Lothians,

DURING EACH YEAR FROM 1831 TO 1872 INCLUSIVE.



IN GREAT BRITAIN IN 1842 AND 1892.

But perhaps one of the most remarkable instances of improvement of social condition is that of the coal miner of Northumberland. Two generations ago he was a helpless, degraded wage-slave, utterly without the means of resisting the worst abuses of capitalist tyranny. The hewer of 1830, if we may trust a contemporary pamphlet, often received little more than 11s. or 12s. a week for ten or twelve hours a day underground. The miners' delegate meeting settled the strike of 1831 on terms which included a minimum of 30s. per fortnight for twelve hours a day.*

But the miner was constantly cheated in the weight of coals drawn, and in the food and other commodities that he was compelled to buy at his employer's "Tommy shop." Spasmodic rebellions resulted in particular martyrdoms, without producing either any durable combination or any appreciable improvement in the miner's lot. His "yearly bond," enforced by ruthless magistrates, kept him in a position little better than serfdom, whilst the utter absence of any provision for education seemed to leave no ray of hope for any uplifting of his class. Now the Northumberland miner stands in the very front ranks of what is often not inappropriately termed the aristocracy of labour. A strong and admirably-led trade union defends him both from employers' tyranny and the accidental fluctuations of earnings which arise from the changing character of the "face" of the mine. He has secured effective legislative protection against fraud, and, as far as may be, against the avoidable dangers of his calling. He works hard, but his labour is concentrated into fewer hours, so as to leave him leisure for public or private affairs.

It would be in the highest degree instructive to study in detail the means by which this beneficent revolution has taken place. It is significant that the Northumberland miners were unable to form any durable trade union until the Mines Regulation Act of 1842 had given them some protection from the worst abuses of competition, and that the strength and efficiency of their union has grown in direct proportion to the amount of legislative regulation which the union has been able to procure for their industry. A similar remark might be made as to the spread of co-operation among them. The Northumberland pitmen appear, indeed, to present an almost perfect example of the manner in which well-devised legislative regulation, trade union action, and the growth of co-operation act and react one upon the other to the permanent elevation of the standard of life.

The splendid progress of the Northumberland coal hewers has been shared in greater or less degree by many other classes ; but

* "An Appeal to the Public from the Pitmen." Delegates' meeting, Newcastle, May 6th, 1831. This is reprinted in the Appendix to Fyne's "Miners of Northumberland and Durham" (Blyth: 1873).

THE CONDITION OF THE WORKING CLASS

it is unnecessary to dwell further upon this side of the question. What is more useful to us to notice is the fact that this great advance in prosperity, this great rise in the standard of life, has not been universal. There are living in our midst considerable masses of people who, as regards their economic circumstances, are still in 1842. Now it is a very difficult thing to compare with any accuracy the general condition of the people at one period with that of another. But there is one datum line that remains pretty constant, and that is the level of mere subsistence. If we find any class existing just at this subsistence level, we may feel sure that no great improvement can have taken place in its condition; and if we discover in our midst classes who do not even manage to get enough for durable subsistence—who live, to use Mr. Charles Booth's phrase, in a state of chronic want—we may know that the lot of these classes can, by the nature of things, never have been any worse, even in 1842. Mr. Charles Booth tells us,* in the effective "eloquence unadorned" of his columns of statistics, that some 32 per cent of the whole four millions of London's population fall within his four classes of "poverty," earning not more than a guinea per week per family. Now, if we remember the great rise in rent in the overcrowded districts of London, it is difficult to believe than, even in 1842, the percentage of persons at a corresponding low level can have been greater. It is practically certain, remembering the great increase in the total population, that at no previous time were the actual numbers more than at present. It has been reserved for our own prosperous time to produce the spectacle of over a million of people within one city living "in poverty." And when we examine closer into Mr. Booth's appalling details, and begin to realise that out of this huge residuum nearly a third are actually below what can be called even full subsistence for a London family, we shall begin to feel that our boasted progress since 1842 has not, after all, taken us very far. The 300,000 Londoners who fail to get even 18s. a week per family, and live "in chronic want," can never have been poorer. Their actual number in the much smaller city of 1842 cannot have been so great. And if we take into account the slums of our other great cities, and realise that we have in our midst a class of at least a million persons, besides the million at any one time in receipt of Poor Law relief, who live "in chronic want" of even the necessities of life, we shall begin to understand how very partial, after all, has been our progress.

It is often assumed that this huge residuum, which is existing in our midst at starvation wages, is made up of unskilled labourers, or women plying the needle, or drunkards and

* "Labour and Life of the People," vols. 1 and 2.

IN GREAT BRITAIN IN 1842 AND 1892.

astrels of all kinds. Unhappily this is not entirely the case. The unskilled labourer, indeed, is morally entitled to full subsistence, and does not always get this; but even men with a trade are sometimes little better off. We find to-day numerous small classes of skilled craftsmen in large towns whose weekly earnings do not amount, even in this year of grace 1892, to a pound a week. The Sheffield fork grinders, for instance, working at a terribly unhealthy and laborious trade, are constantly found working (as fatal hands) for 16s. to 20s. for a full week of fifty-six hours, subject to considerable reductions for lost time. Similarly the Sheffield table blade grinders, who do the common work, do not get more than a guinea a week net when working full time. Even in the comparative prosperous textile industries there are large classes of men working (as weavers, &c.) who do not make a pound a week. Consider, too, the wages which our civilisation allots to adult able-bodied women. It is difficult to believe that 7s. a week earned by the Belfast ropemaker or tobacco-worker, or even the 10s. or 12s. earned at piecework by the skilled linen weaver or Glasgow cotton mill operative, represents any appreciable advance on the scale of the past generation. Women's wages for unskilled labour still avastate, as a rule, pretty close to the subsistence level, below which they can at no time have sunk for any length of time.* Out of the four millions of women who at the present time are working for wages, a very large percentage must be earning practically no better subsistence than their grandmothers did. It is at least doubtful whether any previous age could show so large a total at this low level. And if we might sum up in one general impression the different facts as to comparative wages, we should, I think, have to come to this conclusion—Whilst the skilled male craftsman has largely increased his income, and a practically new class of responsible and fairly well-paid labourers or machine minders has come into existence, there exists now a greater sum (though a smaller proportion) of hopeless destitution than at any previous time. It appears at any rate highly probable that in 1892 there are positively more people in Great Britain who are existing at or near starvation wages than there were in 1842, although their number bears a smaller proportion to the whole.

It must, of course, not be forgotten that prices are not the same as in 1842. The workman pays much more in rent than he did then, not only from the positive rise of rent but also because a far larger proportion of the total population now live and work in towns. Meat, coal, and milk, with a few other articles, are dearer. But I see no

* See on this point some instructive remarks in "Women's Wages," by Professor W. Smart (Proceedings of the Philosophical Society of Glasgow, 1892).

THE CONDITION OF THE WORKING CLASS

reason to doubt the statistical conclusion that prices are on the whole lower than in 1842. The reduction in the price of bread is worth more to the agricultural labourer or to the family at sheer subsistence level in London than any alteration in the price of butcher's meat. The rise in rent is a real and most serious deduction from the increase of wages, and is no doubt a great cause of the destitution of the urban residuum. The proportion of the income which is paid away for rent is, of course, greatest in the very poorest class, and this accordingly suffers most from the rise. But it is far from being equal to the advance in the money wages of the skilled artisan, whose weekly earnings certainly procure for himself and his family a great deal larger share of comfort and civilisation than could have been commanded by his grandfather. My conclusion is that, on the whole, wages are not only higher but are also worth more than they were before. On the other hand, the increased cost of rent, and meat and milk, presses with undue severity upon the helpless poor of our great cities, and perhaps keeps their condition down to the old bad level.

IRREGULARITY OF EMPLOYMENT.

BUT it would be misleading to consider only the rate of wages without paying at least equal attention to the extent to which the workman is irregularly employed. The weekly earnings of a stonemason, for instance, may run up to 36s. or 42s. for the time that he is in constant employment, but any estimate of his yearly income would be fallacious in the extreme if it did not take into account that he usually earns little or nothing during the winter months. We cannot, therefore, usefully compare rates of wages unless we at the same time endeavour to estimate whether employment has become less or more intermittent and irregular.

Now, on this point of comparative regularity of employment we have at present practically no statistical information, and the most diverse accounts are given by different witnesses. If we were to believe some of our friends we should conclude that irregularity of employment was a comparatively new thing, the product of the competitive system in its decay, unknown to our forefathers. But whatever may have been the case in that semi-mythical golden age of the hand industry, it is quite certain that fifty years ago there were periods of bad trade and widespread lack of employment. Of this we find abundant evidence in all directions. It will be unnecessary to do more than refer to the large number of persons who at that time received Poor Law relief. A better index to the chronic lack of employment in the winter months is given by the way in which the numbers in receipt of relief went up as soon as the cold weather set in. But evidence of another and perhaps more

IN GREAT BRITAIN IN 1842 AND 1892.

trustworthy kind is to be found in the records of the old trade unions. The skilled craftsman, earning good wages whilst at work, as then, as now, loth to throw himself on the parish, and some of the early trade societies were formed largely with the object of providing maintenance for their members when out of work. Out-of-work pay, or, as it is sometimes expressively termed, "idle maintenance," was, as far as I am aware, not given in 1842 by any trade union, but elaborate provisions were made to enable men who could not find employment in their town to go on tramp in search of it. "Tramp" had not then become a term of reproach, and the "tramp's room" was a regular feature of every public-house patronised by one of the larger trade societies. The tramping system has not entirely died out, but most societies abandoned it between 1840 and 1870, generally substituting the present "home maintenance" in its place. The older men who may read this article will therefore, I hope, pardon a few commonplace details on the subject for the sake of the younger generation, to whom the "horrors of the road" are unknown. The tramp had usually exhausted all his scanty funds before he made up his mind to wander, and it was therefore necessary to organise a regular system of daily relief all over the kingdom. Already in the middle of the eighteenth century the woolcombers were associated, from Taunton to the Tees, in a single widespread association for relieving their travelling members. Long before 1824, too, the compositors seem to have covered the land with a network of local societies, one of whose chief aims was the mutual relief of each other's tramps. The little society of ironmoulders, which started at Bolton in 1809, soon expanded into an organisation of national extent with similar objects. The member "clear on the books" who was driven to travel received a "clear card," which entitled him to a bed in the tramp's room and a shilling or two from the branch secretary at each of the society's branches on his route, until he came to a place where he found a job, or until he became "box fast," and entitled to no more relief. It is needless to say that in these days there were few or no railways, and practically no cheap means of transit. The tramp, therefore, invariably walked from stage to stage, exposed to all the inclemency of the weather, for he could receive no more than one day's allowance at each station, and the stations were often many miles apart. And so we find, for instance, the bookbinders enacting, in 1835, that—

Members whose shoes had become defective, after travelling eighty miles with a document, could have them repaired at the union's expense by obtaining an order from the local secretary of the town he was in to that effect.

Of the extent to which this tramping system was resorted to we have scarcely any statistics; but the entries in the branch minute

THE CONDITION OF THE WORKING CLASS

books of this period show that a considerable number of *bona fide* tramps were at all times on the road, and every now and then the complaints become frequent and loud of the large proportion of men arriving with cards from other towns, or leaving, furnished with the same credentials, in search of work elsewhere.

It would therefore be incorrect to assume that irregularity of employment is any new thing, or even that it is greater now than fifty years ago. The building trades were just as much checked by the cold weather then as now. The frozen-out gardeners were quite as familiar a sight to our forefathers as they are to us. The farm labourer depended on his winter coals and blankets from the parson, and the squire to at least as great an extent as he will this winter. And if we turn to the more widespread destitution caused by change of fashion or a commercial crisis, we find the records of fifty years ago full of evidence of the existence of depressions at least as acute as any we ever suffer from to-day. Indeed, the year 1842 was just the culminating point of that "rebellion of the belly" which had begun three years before in Birmingham and Newport riotings, and which took the form of a demand for the "People's Charter;" and throughout the whole of the period between 1837 and 1848 we find the Chartist movement swelling and contracting in almost exact correspondence with the acuteness of the economic distress of the people. In 1841 and 1842 things got very bad indeed. The harvest for four successive years was wretchedly deficient, and trade seemed to be coming to an end altogether. Genuine hunger strikes took place, and the staple industries of Yorkshire and the Midlands were nearly at a standstill. The cotton trade was so bad that in 1842 some bitter jester placarded Stockport with bills announcing that the whole town was to let. The sufferings of Bolton in January 1842, are described by one of the strong men of the time in language which palpitates with anger:—

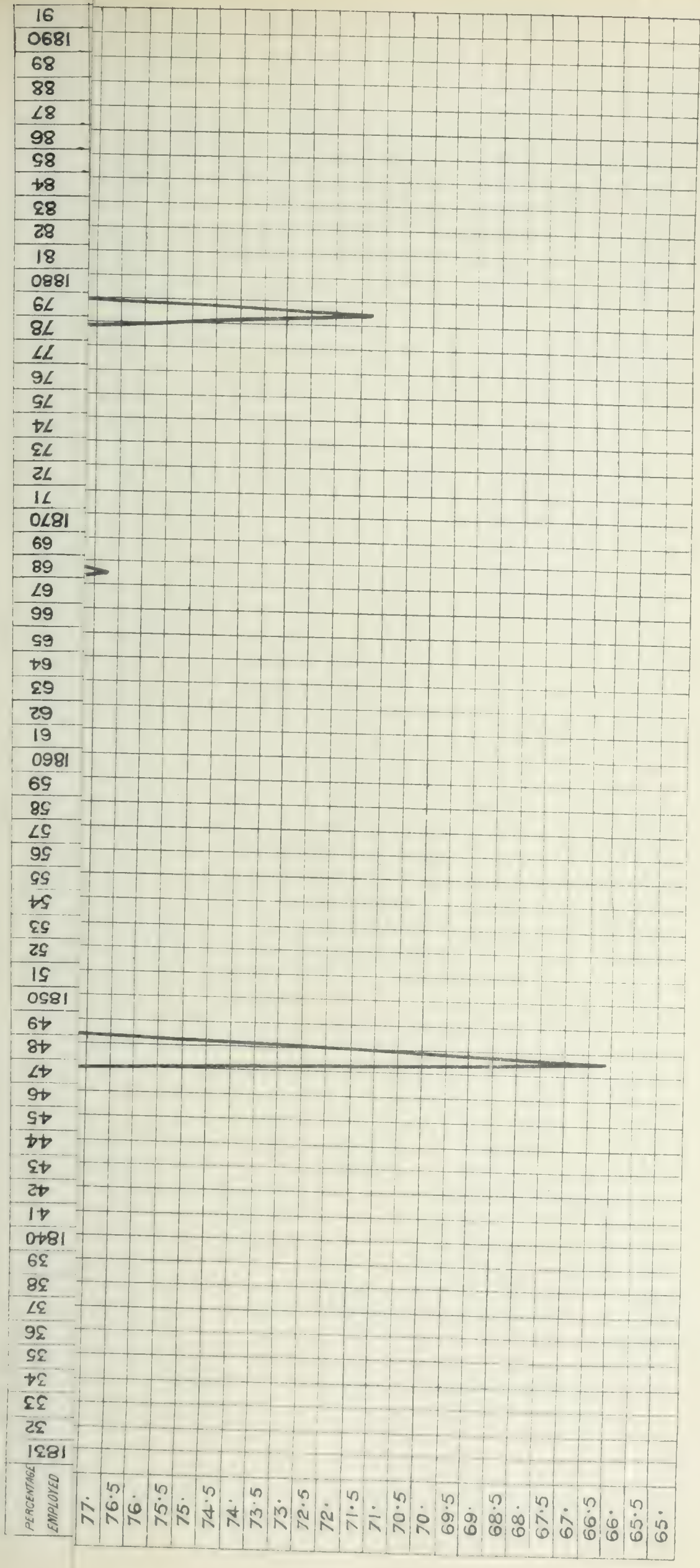
Anything like the squalid misery, the slow, mouldering, putrifying death by which the weak and feeble of the working classes are perishing here, it never befell my eyes to behold nor my imagination to conceive. And the creatures seem to have no idea of resisting, or even repining. They sit down with oriental submission, as if it was God and not the landlord that was laying his hand upon them.*

Nor was this widespread lack of employment peculiar to 1842. The following instructive diagram, compiled from the admirable statistics of Mr. W. H. Hey, F.S.S., the general secretary, represents the percentage of the Ironfounders' Society who, during each year from 1831 to 1891, were fortunate enough to be in work. Out of these sixty-one years there have been no fewer than eighteen during which the average number of ironfounders unemployed

* Colonel Perronet Thompson, in the *Sun*, 9th January, 1842.

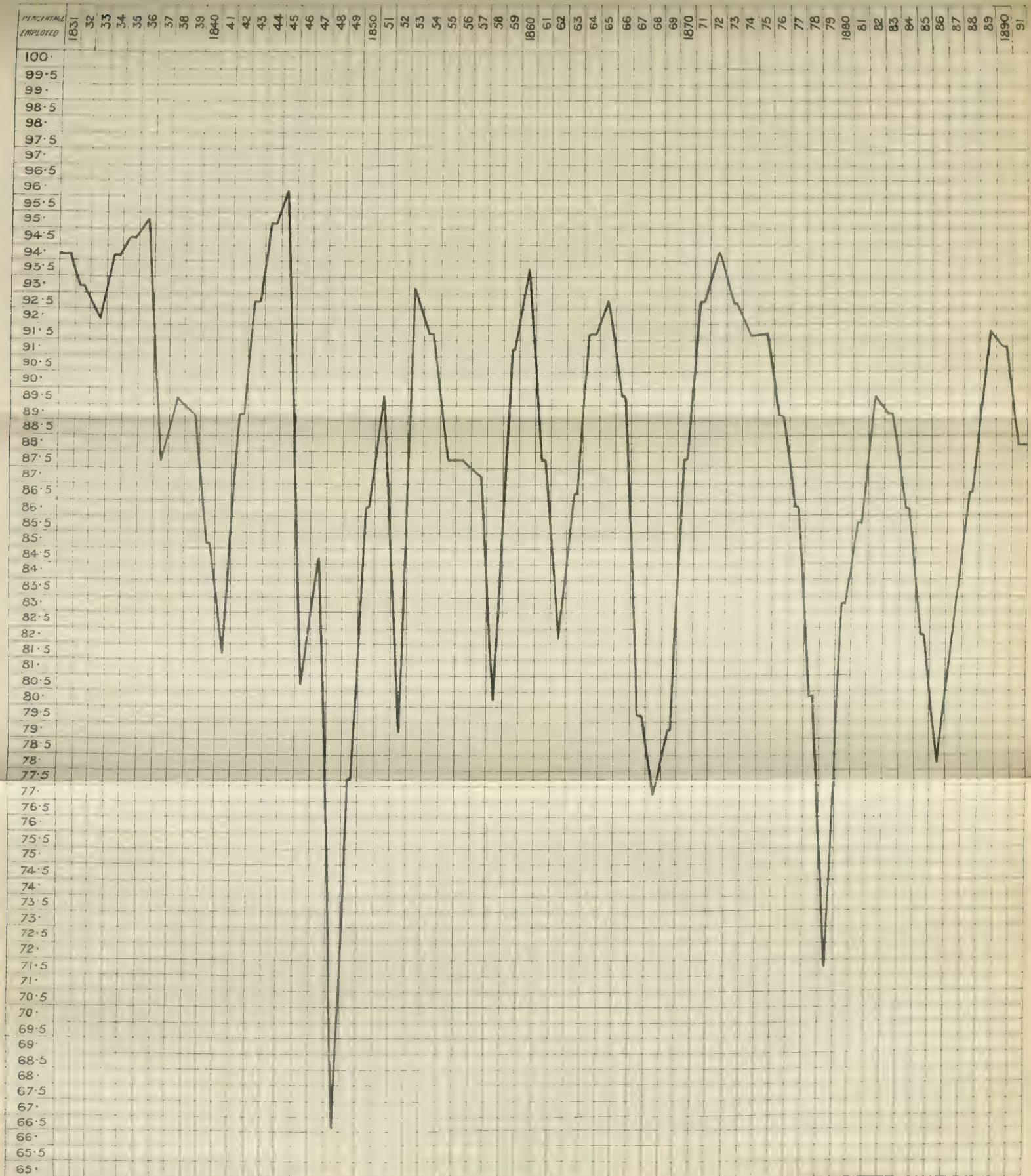
Average Percentage of Members of the Friendly Society of Non-owners who were in Employment during each of the years 1831 to 1891 inclusive.

(Compiled from the Statistics in the Annual Report for 1892.)



Average Percentage of Members of the Friendly Society of Ironfounders who were in Employment during each of the years 1831 to 1891 inclusive.

(Compiled from the Statistics in the Annual Report for 1892.)



IN GREAT BRITAIN IN 1842 AND 1892.

reached fifteen in every hundred. The worst point reached was in 1848, when a third of the members were on benefit.* But what the curve shows most graphically is that irregularity of employment due to commercial crises is by no means a new thing.

We are therefore driven to the conclusion that, whatever deduction from the artisan's nominal income must be made for "short time" at the present day, it is probable that a corresponding reduction would have had to be made from the nominal income in 1842. The statisticians are therefore justified in comparing the weekly wages of the two periods, however uncertain we may be as to the exact amount of the deduction which ought to be made at either of them.†

It would be beyond my province at the present time to say anything upon the serious problem which this fluctuation of employment presents to the economist and the statesman. But nothing is gained by the assertion frequently made, that it is in any sense a new problem. Rightly understood, the antiquity and persistence of the problem is only an additional reason why our statesmen ought at once earnestly to set to work to find out how to grapple with what is one of the most serious evils of our industrial organisation.

HOURS OF LABOUR.

BUT there are other things besides wages to be taken into account in considering the condition of the wage earner, and one of the most important of these, from the point of view of civilisation, is the length of the working day. I believe that the great value of any shortening of the hours of labour lies, as I have elsewhere urged,‡ not in the absorption of the unemployed, which must, at best, be but partial and evanescent, nor yet in the raising of wages, which is uncertain,

* The exceptional percentage of men employed in 1845, and the correspondingly exceptional depression of 1848, denote, of course, the growth and collapse of the railway mania, which had an exactly similar effect upon the employment of compositors. It must be borne in mind that during the period covered by this curve the society has changed from being a small minority of the trade to comprising nearly all competent workmen in it. The proportion of men on the funds would therefore be greater now than in a similar state of trade a generation ago. For perfect accuracy of comparison, rates, periods, and conditions of the out-of-work benefit would have to be taken into account.

† An even more difficult detail in the comparison is the amount of time lost in hours by workmen in so-called constant employment. Fifty years ago employment by the hour was unknown. The yearly bond was still usual among large classes; monthly engagements were very frequent; and at any rate the workman was hired for the day or the week. Now, in some trades, he seldom gets paid for quite his full week's hours, and this constant loss of dribblets of his time, whilst it does not appear even in the trade union records, must make a real deduction from his nominal income.

‡ "The Eight Hours Day." (Walter Scott, 1s.)

THE CONDITION OF THE WORKING CLASS

but in the increased leisure which the workman gains for life outside his work. A worker who is employed from morning till night, especially if his work is monotonous or without real intellectual dignity, suffers a subtle degradation of character. Instead of a man and a citizen, he becomes merely a "hand." I believe that nothing has so powerfully contributed towards the rise in the standard of life of our wage earners as the general diminution which has taken place in the hours of labour. The Factory Acts were the salvation of Lancashire.

A hundred years ago the English artisan commonly worked for about seventy-two hours per week. This was a reduction from 1747, when in London, at any rate, the bulk of the men worked nearer seventy-five or eighty hours. A rare pamphlet of that year in the Patent Office Library gives us the hours of labour of 118 different trades in London, of which thirteen worked from 6 a.m. to 6 p.m., three from 6 to 7, sixty-one from 6 to 8, thirty-nine from 6 to 9, and two from 5 to 9.* The unregulated greed of the millowners in the new textile industries rapidly lengthened the working day to fourteen and even sixteen hours. One striking feature of this period is the way in which children (usually employed at time wages) were kept at work even longer than the adult workers (among whom piecework was already prevalent). Thus, in 1831, the boys in the Northumberland mines, who were paid by the day, are said to have been kept at work for fourteen to seventeen hours a day, whilst the hewers, paid by the ton, restricted their shifts to ten or twelve hours each.†

But by 1842 the ten hours day had become generally established as the normal working time of town artisans, and in 1847 the passage into law of the Ten Hours Bill made it the rule for textile operatives. Overtime was, however, still frequently worked in many trades, and the Saturday half-holiday was of course unknown.

Since that time Mr. Giffen computes that the hours of labour have been reduced on an average by 20 per cent, an estimate which seems to me to be rather over the mark. Many people are misled into an optimistic complacency on this point from too exclusive consideration of the textile industries, in which the hours of labour have *by the operation of law* been successfully reduced by at least 20 per cent. But the beneficent protection of the Factory Acts, especially in the matter of hours, has hitherto been withheld from other workers, and the shortening of the working day has been by no means universal. I have, for instance, no statistics of the hours of

* "General Description of all Trades." (London: 1747.)

† "An Earnest Address and Urgent Appeal to the People of England in behalf of the Oppressed and Suffering Pitmen of the Counties of Northumberland and Durham." By W. Scott. (Newcastle: 1831.)

IN GREAT BRITAIN IN 1842 AND 1892.

railway servants in 1842, but I cannot believe that the directors of that year succeeded in getting any more out of the men they employed than did the directors of the North British Railway Company in 1889.

I have elsewhere given particulars of many cases of men being *regularly* kept on duty for fifteen hours a day, whilst instances of sixteen or twenty hours' work at a stretch are common. The returns compiled by the railway companies themselves, and published annually by the Board of Trade, indicate that the general average among railway workers at the present time is at least twelve hours a day, with a great deal of Sunday labour, and the evil continues. The Select Committee of the House of Commons, composed of a majority of Conservatives, and presided over by a Conservative minister, declared, as recently as May, 1892, that although some complaints had been exaggerated—

It appears from the evidence far more clearly than from the Parliamentary returns that there are still too many cases in which excessive hours are habitually worked without adequate reason, and that no sufficient effort has been made by the companies generally to deal earnestly and thoroughly with the matter.*

Nor do the long hours of railway workers stand alone. The Bradford tramway conductor who, in March, 1891, was found to be working regularly for 115 hours per week, would hardly agree with the optimistic conclusions as to the reduction in the hours of labour. And there are many other classes of workers, such as shop assistants, barmen and barmaids, hospital nurses, pawnbrokers' assistants, blast furnacemen, steelworkers, and bakers, whose day's labour normally reaches at least twelve hours. The progress of the nation, and especially the great growth of town life, has indeed directly tended, in some occupations, to lengthen the hours of labour. Fifty years ago artificial lighting was neither so good nor so cheap as it has now become, and the day could not be so easily lengthened. The London public-houses have probably never been open for so many hours out of the twenty-four as they have since 1875, when the time of closing was extended to half-an-hour beyond midnight. In 1842 there were comparatively few theatres or other places of evening entertainment, and especially in provincial towns folks stayed in after dark and went to bed early. Abundant gas and cheap plate glass have probably lengthened the hours of shop assistants, just as the increase of evening amusements has made long those of barmaids, tramway servants, and omnibus men; and even where, as in the case of the engineer, the normal hours of labour have in some places been reduced from sixty to fifty-three per week, this reduction has been largely neutralised by the prevalent

* Report of the Select Committee on Railways (Hours of Labour), p. iv. (H. C., 246; May, 1892. Price 2s. 8d.)

THE CONDITION OF THE WORKING CLASS

practice of working overtime. It is doubtful whether the nine hours movement, resting as it does merely on the strength of the trade unions, has really effected any considerable reduction in the length of the working week, and in many trades with nominally restricted hours every depression of trade produces a lengthening of the hours actually worked. It is therefore difficult to come to any very optimistic conclusions as to the extent to which the hours of labour have been shortened during the last fifty years. The progress has been very partial, and large masses of workers have still to labour for longer than is good either for them or for the community. It seems evident that if we are really resolved that no worker shall be compelled to spend his whole waking life in monotonous toil, we shall have to take more energetic measures than have yet been attempted.

THE HOUSING OF THE PEOPLE.

AND if we turn from the hours of labour to the workman's dwelling, and inquire what kind of home our civilisation affords him, it is equally difficult to give an optimistic answer. It is true that fifty years ago sanitation both for rich and for poor was almost unknown, and that owing to the "municipal socialism" of our town councils, the worker has to a large extent shared in the general improvement in this respect. But in the matter of actual room accommodation, the statistics of the present day reveal such deplorable shortcomings that one is tempted to declare that things could scarcely ever have been worse. The great crowding into the large towns, which has been so marked a feature of the last fifty years, has gone far to counteract the spasmodic and partial efforts towards better housing. When the Royal Commission on the Housing of the Poor began their labours in 1884, they turned first to a veteran philanthropist who had taken part in every movement for social improvement. Their Report tells us that—

The first witness who was examined, Lord Shaftesbury, expressed the opinion more than once, as the result of nearly sixty years' experience, that however great the improvement of the condition of the poor in London has been in other respects, *the overcrowding has become more serious than it ever was*. This opinion was corroborated by witnesses who spoke from their own knowledge of its increase in various parts of the town.*

And if we turn to other parts of the kingdom we find conclusions which are scarcely less appalling. Much has been done in the way of improvement in various parts of Scotland, but 22 per cent of

* See the Report of the Royal Commission on the Housing of the Poor; "The Housing of the Poor," by F. H. Millington (Cassell and Co., 1s.); "The Housing of the Working Classes," by J. Theodore Dodd (National Press Agency, 1d.); and "The London Programme," by the present writer (Sonnenschein, 2s. 6d. and 1s.).

IN GREAT BRITAIN IN 1842 AND 1892.

Scottish families still dwell in a single room each, and the proportion in the case of Glasgow rises to 33 per cent. The little town of Kilmarnock, with only 25,864 inhabitants, huddles even a slightly larger proportion of its families into single room tenements. Altogether there are in Glasgow over 120,000, in all Scotland 560,000 persons (more than one-eighth of the whole population), who do not know the decency of even a two-roomed house.*

Compare with this phase of Scottish working class life the fact just revealed by an elaborate inquiry into the dwelling-houses of Boston, Massachusetts, a city of 311,000 inhabitants, where rents are high. The number of families dwelling in single rooms was found to be only 1,053, or fewer than $1\frac{1}{2}$ per cent, as against Glasgow's 33 per cent.†

Our Scottish record represents indeed some improvement, for in 1861 35 per cent of the family groups in Scotland lived each in a single room. But the rate of improvement—at no time rapid enough for our impatience—has actually slackened during the last decade. The total number of single room families positively increased between 1861 and 1871 by over 4,000; it decreased in the next ten years by 27,000, or 11 per cent; whilst the last decade has shown a decrease only of 18,000, or less than 9 per cent. At the present rate of progress it would take over a century to remove this disgrace to Scottish civilisation. It must not be supposed that England enjoys any great superiority over Scotland in this respect. Unfortunately no accurate statistics on the subject are yet to be had,‡ but we can infer from Mr. Charles Booth's careful census of London poverty that at least 300,000 persons in the great city, or one in every twelve, must be dwelling in tenements of one room for the family; and although it is doubtful whether England has any town as small as Kilmarnock where such general overcrowding prevails, there are hundreds of thousands of single room tenements in our great towns, and we cannot help the inference that the total number of persons in our midst to whom the elementary conditions of decent family life are unknown must be counted by a million or two. Here, again, although the percentage of the total population is doubtless much less than in 1842, I feel some doubt whether the actual number of those in this condition is much smaller; and this is a point of supreme importance in our estimate of comparative civilisation. It is nearly impossible to get good citizenship, good trade-unionism, or good co-operation

* Census Bluebook, 1892. C. 6755.

† Massachusetts Bureau of Statistics of Labour. Report for 1891, page 567.

‡ The particulars as to rooms have not hitherto been given in the census for England and Wales; and the census results for 1891, which will contain them, are not yet published.

THE CONDITION OF THE WORKING CLASS

out of a one-roomed home. Until we can secure to these millions of unfortunates the conditions of elementary decency, we can count upon no real progress in their civilisation.*

"The consequences of a man and his wife living in the same room in which the man works is mischievous to them in all respects, and I here add, as a recommendation to all journeymen, tradesmen, and other workmen who are much at home, and even to those who are only at home at meal times and after working hours, and at other times such as Sundays and when they have no employment, to make almost any sacrifice to keep possession of two rooms, however small and however inconveniently situated as regards the place of their employment. Much better is it to be compelled to walk a mile or even two miles to and from their work to a lodging with two rooms, than to live close to their work in a lodging of one room. I advise them also to arrange them contrary to the usual custom of those who have two rooms, and to put the bed in the room in which as much as possible of the domestic work is done. A neat, clean room though it be as small as a closet and however few the articles of furniture, is of more importance in its moral consequences than anybody seems hitherto to have supposed. The room in which we now lived was a front room at a baker's shop. The house had three windows in the front, two in the room and one in a large closet at the end of the room. In this closet I worked. It was a great accommodation to us; it enabled my wife to keep the room in better order; it was advantageous too, in its moral effects. Attendance on the child was not as it had been, always in my presence. I was shut out from seeing the fire lighted, the room washed and cleaned, and the clothes washed and ironed, as well as the cooking. We frequently went to bed, as we had but too often been accustomed to do, with a wet or damp floor, and with wet clothes hanging up in the room. Still, a great deal of the annoyance and too close an interference with each other in many disagreeable particulars (which having but one room made inevitable) were removed—happily removed for ever."

CONCLUSION.

SPACE does not permit me to enlarge further upon my theme. Under every heading it might be shown that, whilst the position of a large section of the wage earners has greatly advanced since 1842, other sections have obtained little, if any, share of the general growth in civilisation and wealth. If we took each department of life in turn, and fixed a datum line below which we considered that the workman could not decently live, we should find, alike in wages, hours of work, dwelling and general civilisation, that the percentage of those who fell below the line is less now than it was in 1842. But we should discover also that the lowest level reached was quite as low as at that time, and that the total number falling below our assumed datum line was, in actual magnitude, probably greater than in 1842. The depth of the poverty is as great as ever it can have been, its actual breadth even is as great or greater; the residuum of

* I will venture to quote on this point the unpublished autobiography of Francis Place, the Radical Reformer of Westminster, which is being edited by my friend Graham Wallas. (Note Place's masculine oblivion of the desirability of his wife also having a separate sitting-room!)

IN GREAT BRITAIN IN 1842 AND 1892.

1842 remains, indeed, undiminished on our hands and our consciences. Under these circumstances the fact that the more prosperous section has increased and multiplied in numbers and in wealth, whilst leaving so large a part of the community unimproved, appears to me to aggravate our responsibility in the matter. The general moral of the whole survey seems to be the need for more earnest endeavour to "level up" this residuum. The retrospect teaches us that this levelling up is possible. It has actually been accomplished as regards particular industries. The inference is that it could be equally carried out in others did we but really choose to take the appropriate means. And if I had to name one great factor in the continued industrial degradation of large sections of the community who remain in the trough of destitution, I should not hesitate to place first the demoralising influence of what is called the "sweating system"—or more precisely, home work.* Home work it is, with all its insidious demoralisation, that keeps down the earnings of East London, of the downtrodden Sheffield trades, of the miserably paid workers in the Black Country, of women workers everywhere.† And it is instructive to notice that, just as in 1842 it was the decaying influence of eighteenth century organisation that produced so much of the misery of that time, so in 1892 it is the evil effect of the obsolescent hand industry, with its small masters and isolated home labour, that is perhaps the greatest cause of industrial disorganisation. Not until we can thoroughly eradicate the remnants of this system of employment from our midst can we hope to level up its unfortunate victims to the higher standard of life which has been given to their more fortunate brethren by the machine industry and the world commerce.

And if we think seriously of setting to work to lift London to the level of Lancashire, and the Black Country to the standard of Northumberland, the lesson of history is clear. Unregulated individualism it was that produced the "white slavery" of the Lancashire of 1842, and the degraded serfdom of the Northumberland collier. Our fathers dealt with the problem in these cases by replacing this industrial anarchy by the restrictions of well-reasoned collective control. For the headlong competition which was lengthening the hours and destroying the character of the Lancashire mill hand, they substituted the Factory Acts. The heedless greed of the Northumberland coal owner was checked by successive Mines Regulation Acts. Upon the firm basis of these ever-lengthening

* I do not forget the twin social curses of drink and gambling; but these affect individuals in every grade of society. Home work demoralises whole classes.

† See the Central Board tract, "How best to do away with the Sweating System," by Beatrice Potter (Mrs. Sidney Webb).

THE CONDITION OF THE WORKING CLASS, ETC.

codes, strong trade unions arose still further to assert the common will. Protected by law and their trade unions, the coal hewers and the cotton spinners were able to combine in yet other ways. Co-operative stores, which had hitherto failed, began to flourish. Town councils stepped in with fresh assertions of collectivism, to raise the standard of sanitation, and to minister to the common needs of urban populations; and finally it was the votes of these comparatively prosperous communities which secured for themselves and their less fortunate brethren that tremendous development of collectivism, our system of national education. In every department of life where any progress has taken place since 1842, we find that progress marked by an evergrowing substitution of collective rule for individual control. And just where the advance of this collective rule has been checked—in the industries jealously fenced off from effective factory legislation, in the localities from which thorough municipal institutions have been withheld—just there do we find the chief instances in which progress in civilisation has been small or non-existent. Factory legislation, trade-unionism, and that combination of consumers for educational or administrative purposes which takes the form either of municipal socialism or co-operative societies—these have been the three great factors in whatever progress has been made since 1842. Our chief hope for the levelling up of the residuum must lie in the well-devised extension of these manifestations of collectivism.

A HISTORICAL NOTE AS TO PAYMENT OF MEMBERS OF PARLIAMENT.

—
BY A. H. WORTHINGTON.
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IT is perhaps not generally known that the payment of members of the British House of Commons is no new idea, and that, in fact, for many generations in the early history of Parliament it was the usual practice for members to receive wages for their services.

The members of the House of Lords always attended Parliament at their own expense. The theory as to their attendance was, that they held their peerages (or baronies, as they were called) from the Crown on the condition of their performing certain services to the Crown, among them being the service of attending Parliament when summoned in order to assist the sovereign with their advice and counsel.

Members of the House of Commons were, however, paid for their services from the earliest times of Parliaments. Parliament on its present basis is an institution of slow and gradual growth, and it is only from the date of the beginning of the reign of Edward III. (1327) that the representation of the Commons in addition to the Lords spiritual and temporal came to be recognised as an indispensable requisite for a legal Parliament. From about that period the name of Parliament was applied only to assemblies when the three estates (including the Commons) were duly represented. Prior to that, Parliament was more of the nature of a great council summoned by the king to advise him or to assist him in any measures or undertakings he might have on hand, and more particularly in the administration of justice. In these earlier times the Commons would or would not be summoned at the pleasure of the king, and accordingly Parliaments were held sometimes with their attendance and sometimes without. How great the constitutional changes that have taken place since then may be realised by picturing a Parliament summoned to-day by Her Majesty without the Commons!

Accordingly, it appears that prior to the beginning of the fourteenth century the Commons were sometimes summoned and sometimes not. The practice of the payment of members dates earlier than the regular assembling of the Commons. The first cases of the

A HISTORICAL NOTE AS TO PAYMENT OF MEMBERS OF PARLIAMENT.

payment of members cannot be exactly fixed, but it is certain that in the reign of Edward II. (1307 to 1327) members were paid for their services. In the seventh year of the reign of Edward II. the rate of wages was fixed either by prior usage or by an ordinance at 4s. a day to each knight of the shire, and 2s. a day to each citizen or burgess of a city or borough who was chosen as a representative to the House of Commons. The value of 4s. and 2s. was then, of course, very much higher than it is now—at least eight or nine times as great—so that the payment of 4s. and 2s. would be equal to at least 36s. and 18s.

The whole system of the election of the House of Commons in those early days of Parliament, when registration of votes, the ballot, and other precise and exact ways of getting a real representation were quite unknown, was very different to what it is now. The history of the gradual changes in these respects is extremely interesting, but is apart from the present purpose of this paper. One point, however, may be noted which has a direct and important bearing on the question of the payment of members, and that is, that it was not by any means always considered a privilege to send a member to Parliament, or, on the other hand, to be chosen as a representative to Parliament. On the one hand, the sheriff often had difficulty in enforcing his writs for the moneys to be paid to members; and on the other, knights, citizens, and burgesses frequently did not sufficiently esteem the privilege, or could not afford to give the time and bear the expense required for travelling to Westminster (or wherever the Parliament might be held, as it was not always held in the same place) out of their own pockets. Thus similarly the practice of paying members vanished as a seat in Parliament became more valued, and became an object of keener political aspiration or of personal desire and ambition. The practice continued, however, for many generations. It is about 250 years ago that it ceased to become universal, though it is said that in some of the out-of-the-way boroughs of Cornwall members were paid their wages as late as the end of the seventeenth century. The payment was not a mere voluntary matter on the part of the constituencies. The earliest English statutes of which there is any record dealing with this matter are certain Acts of Henry the Eighth's reign, passed in the years 1535 and 1543, when the rates of wages (4s. for knights of counties and 2s. for citizens and burgesses of cities and boroughs) and the mode of enforcing payment are precisely laid down. Prior to this these were fixed either by some statute now lost, or by custom, or by an ordinance, or possibly partly in all three ways. However this may be, the wages were collected by the sheriffs and magistrates from the counties or the towns represented. The payment was not a

A HISTORICAL NOTE AS TO PAYMENT OF MEMBERS OF PARLIAMENT.

voluntary offering on the part of the constituency; it was enforceable at law by means of the sheriffs' writs, and if not paid the sheriff took steps to collect it from the recalcitrant county or borough.

It will thus be seen that the funds for the wages of members were not derived from the Imperial Treasury, or from the funds at the disposal of the Crown or Parliament, but from the local constituencies themselves. Indeed, there are many curious instances of petitions and pleas by which on different grounds constituencies endeavoured to escape the obligation. Sometimes, moreover, the different constituencies, or portions of them, purchased the right of exemption. Thus in 1421 the people of Ely paid to the county of Cambridge £200 as purchase money for immunity from this payment, an immunity which they had previously unsuccessfully claimed by right of some special franchise.

Though the regular fixed wages were settled by statute, there are many cases where special constituencies of their own free will increased the amounts. Thus in 1483 it is recorded that the magistrates of the City of London granted a wage of 10s. a day to their representatives. Mr. P. A. Taylor quotes from the *Newcastle Record* the following instances of payments:—

Johannes de Denton and Hugo de Hecham in 1334 were each	
paid	2s. a day.
Willielmus de Middleton and Robertus Swineburne in 1413	
were each paid.....	2s. „
The town council voted in 1654	5s. „
Robert Ellison in 1660 was paid	10s. „
Sir Francis Anderson in 1661 was paid	13s. 4d. „
1661, May. Paid Sir Francis Anderson's sallarie for being	
Parliament man for the towne off Newcastle, 128 dayes,	
the last Parliament, at 13s. 4d. per day, £85. 6s. 8d.	

There are cases on record where the constituencies did not follow this more generous practice, but, on the other hand, drove special bargains with their members for a reduced rate of payment. Thus the burgesses of the town of Cambridge in 1427 made a special agreement with their members to accept half the usual sum, and paid them after the rate of 1s. a day only. It will be seen, then, that although the statutory fixed wages were 2s. and 4s. a day to the borough and county representatives respectively, yet in some cases the counties or boroughs paid more to their members and in others less. These cases were, however, by special arrangement between the members and their constituents, and not part of the law of the land. Sometimes the constituencies (as, for example, in the case of London and some of the more wealthy provincial cities and boroughs) increased the payment above the fixed legal limit with a view, no

A HISTORICAL NOTE AS TO PAYMENT OF MEMBERS OF PARLIAMENT.

doubt, of securing the services of the more well to do or the more capable of their fellows, who might not be disposed to give up their own profitable occupations at home without a more substantial inducement than the statutory wages. On the other hand, in some constituencies, as in the case of Cambridge, there was either sufficient competition for the honour or the burgesses were satisfied with a lower class of representatives, and they drove special bargains with their members to accept a payment less than the regular and usual one.

As a rule the members were paid for each day that they were kept by their duties from their homes, including the days spent on the way (*in eundo morando et redeundo*), a by no means unimportant point in days when railways and even stage coaches were unknown, and the knights and more wealthy burgesses would go on horseback, and some of the poorer burgesses, no doubt, on foot. In the case of some of the more northern constituencies there was frequently shown a disinclination to send members to Parliament, partly, no doubt, on account of the additional expense caused by the long double journey, and also, especially in times of weak government or when the country was in an unsettled state on account of the by no means insignificant risks of the journey.

It must be remembered that the session in the early days of Parliamentary history was not a matter of many months as it is now, and the business would often be disposed of in fewer days than it now takes months.

It may be interesting to refer in a little more detail to a matter already touched on, namely, the mode in which the payment of the members' wages was effected. As has been already stated, it was the constituencies and not the king's treasury that supplied the funds. Each constituency had to meet the expense of its own members. The way it was done was this. At the end of the sittings or session one of the last matters to be transacted was the issue of the writs to the sheriffs and the borough magistrates for the payment of the wages of the representatives in the House of Commons. It was then the duty of the sheriff and the magistrates to see that the payments were duly made, and if necessary to enforce the payment from an unwilling constituency. In some cases where the constituencies were recalcitrant the sheriff and magistrates neglected to enforce the payments to the members, who were then obliged to seek redress by petition. Gradually, for various reasons, and among others the increasing wealth and prosperity and the keener competition for seats in Parliament as the House of Commons acquired more power and membership became more and more an opening to ambition, honour, or position, the payments of members became less and less regular. On the one hand, it became easier to

A HISTORICAL NOTE AS TO PAYMENT OF MEMBERS OF PARLIAMENT.

find members who were willing to give their services, and on the other, the rise in prices, which was especially rapid in the middle of the sixteenth century, soon after the statutory fixing of the amount of the payment, made the payment of comparatively small value. Naturally the constituencies, finding they could meet with suitable representatives without paying them, availed themselves of the opportunity, and the sheriff and magistrates did not bestir themselves more than they could help to enforce the payment from the constituents among whom they lived.

The following preamble from an Act of Parliament passed in 1543 is worth quoting, as throwing light on the whole matter, and particularly as showing that even then this laxity on the part of constituencies and of the sheriffs and magistrates was a growing thing:—

Where the knights of all and every shire of this realm of England and Wales, and the burgesses of all cities, towns, and boroughs of the same, be named, elected, and chosen for their assembly in the King's High Court of Parliament, as by ancient laudable laws and customs of this realm hath been used and accustomed at and by the King's Majesty's high commandments, unto the which knights and burgesses their fees and wages be assigned certainly, that is to say, to every knight by the day 4s. and to every citizen and burgess by the day 2s., or more as heretofore hath been accustomed; (2) accounting for the same so many days as the said High Court of Parliament endureth, with addition thereunto of so many days as every such knight and burgess may reasonably journey and resort from their habitations or dwelling-places to the said High Court of Parliament and from the said High Court to return to their habitations or dwelling-places, together with their costs of writs and other ordinary fees and charges; (3) which wages, fees, and charges at all times ought to be levied and collected by the sheriffs and by the mayors, bailiffs, and other head officers of and in the cities, boroughs, and towns aforesaid wherein some of the said sheriffs, mayors, and bailiffs and other head officers have been negligent and laches no endeavouring themselves in accomplishment of their duties in collection and payment of the same in due form, according to justice, to the great hurt, injury, and delay of the King's said subjects.

One of the latest cases recorded of a member having to petition for the payment of his wages was a case where—

After the dissolution of Parliament in 1681. Thomas King, Esq., late member for Harwich, presented a petition stating that he had served as burgesse in Parliament for the said borough severall years and did give his constant attendance therein; but that the said borough had not paid him his wages though often requested so to do. Notice being given to the Corporation of Harwich, and the facts being verified, the Lord Chancellor ordered the writ to issue *de expensis burgensium levandis*.

It has already been mentioned that the issue of the writs for the payment of wages took place at the end of the session. The time for this had to be so fixed, as it would not otherwise have been possible to calculate the number of days for which each member was entitled to be paid; but there was another very good reason

A HISTORICAL NOTE AS TO PAYMENT OF MEMBERS OF PARLIAMENT.

for the practice. The members were kept in attendance to the very last day of the session, as unless they were there to receive their writs of expenses they had no means of claiming and enforcing their payment. One historian records, with a touch of humour, that the practice—

Had many good effects . . . particularly it engaged the attention of all the members to the very last day of every session, because those who did not attend from the first to the last day received no wages, and their negligence could not be concealed from their constituents; accordingly we often find all members present and receiving writs for their expenses at the dissolution of a Parliament.

Before concluding it may be interesting to note the practice of some of our own colonies and certain foreign States as to the payment of their representative houses or chambers. In Canada members receive ten dollars a day for their services, with a proviso that the greatest amount paid to each member for a session's work shall not exceed 1,000 dollars (say £200). In some of the Australian legislatures payment of members is also the practice. In Italy, Spain, and Germany there is, as in the United Kingdom now, no payment of members; but it is the custom in the following among other States with representative assemblies—the United States of America, France, Sweden, Norway, Belgium, Austria, and Switzerland.

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

BY CHARLES E. FRYER.

THERE is probably no industry which less readily lends itself to the purposes of a summary review than that which is the subject of this article. The area over which it is spread is so vast, the conditions under which it is pursued are so various and so variable, the methods by which it is prosecuted are so many, the purposes to which its products can be applied are so diverse, the subsidiary trades which are dependent on it and on which it, in its turn, is dependent are so important, and the number of hitherto unsolved problems to which it has given rise is so large, that it is not possible to give a fairly correct statement of its position that shall be brief without being bald, and comprehensive without being diffuse. A bare array of figures showing the number of persons employed and the extent of the capital invested in fishing operations, and the quantity and value of the produce of a year's labour, would afford a relatively less satisfactory idea of the present condition of the industry than a similar summary with respect to almost any other single occupation; the skeleton of statistics would need to be clothed with a more ample amount of detailed information than in the case of almost any other industrial pursuit before its outline would approximate to that of the living reality. But we are met at the outset with the difficulty that, whatever the available amount of detailed information with which to amplify its outlines, many parts of the skeleton itself are missing.

FISHERY STATISTICS.

Less than ten years ago, Mr. Spencer Walpole, in his handbook on "The British Fish Trade,"* called special attention to the absence of complete statistics relating to the fishing industries:—

Few things—he wrote—are more remarkable in modern politics than the care which is almost everywhere taken to illustrate by statistics the science of government. In the United Kingdom elaborate arrangements are made with this object. Public officers are employed in enumerating the flocks and herds, in recording the crops which are sown, and in counting every bale of goods which is either imported into or exported from the country. The writer who desires to procure statistical information on almost any subject connected

* "Fisheries Exhibition Literature," vol. 1, part 1.

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

with the growth, the health, the condition, or the industry of the people, is able to obtain it in an authoritative form and in a convenient and cheap volume. . . . Yet the politician or the student who has had occasion to consult the excellent statistics which are published by the British Government has probably noticed one remarkable omission from them. While on every other subject he finds information which is usually full and which is seldom inexact, on one subject he fails to obtain any information whatever. The editor of the "Statistical Abstract" does not seem to be aware that a large number of persons in the British Islands are dependent on fishing for their livelihood; that a considerable proportion of the food of the inhabitants of these islands consists of fish; and that one of the most important trades of the kingdom is the trade in fish. The quantity of fish which is imported into these islands from abroad, or which is exported from them, is included in the statistical abstracts. But on the much greater questions which are connected with the fisheries—the employment which they afford, the capital which they attract, and the wealth which they produce—the "Statistical Abstract" is uniformly silent. . . . The Fishery Board of Scotland, indeed, annually publishes elaborate and detailed accounts of the Scotch herring fishery. The Irish Inspectors of Fisheries also compile once a year some statistics—which, however, are admittedly imperfect—to illustrate the development, or, rather, the decay, of the Irish fisheries. But in England itself little information is afforded to the student who wishes to ascertain the condition of the English fisheries.

This reproach, however, is being gradually removed. The skeleton of fishery statistics is being laboriously, if slowly, articulated. Some of its scattered bones have been brought together, and others are being gradually collected, under the direction of the Board of Trade who for the past six years have published returns showing, as far as practicable, the quantity and value of the various kinds of fish landed on the coasts of the United Kingdom, together with other particulars relating to the industry. But the condition of no trade can be accurately gauged by reference to statistics extending over a period of six years only. Cycles of commercial prosperity or depression, whether due to "sun-spots" or to less remote natural causes, to political influences or to other artificial conditions, are measured by longer terms of years than that. The law of averages must have time to assert itself before statistics acquire their full value. Opportunity must be given for distinguishing between fluctuations which are due to accidental or transient circumstances and those which may be described as fundamental—between such as are beyond human control and such as are capable of remedy or removal. The produce of the fisheries is exceptionally subject to sudden fluctuations which it is impossible to foretell, whose cause it is often difficult to trace, and the effects of which we are therefore unable to provide against; and it would be unsafe to draw the inferences which might appear on the surface of annual returns extending over so short a period as that during which the collection of fishery statistics has taken place. Like wine, statistics improve by "keeping," and every year will add to the value of the returns now being gathered together. In course of time we shall be able to

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

turn to them for an answer to the question whether the productiveness of our fisheries is increasing or diminishing. They will show us whether there has been a growth or a falling off in the capital invested in the industry, in the labour and appliances employed in its pursuits, and what relation these bear to the yield. Then we shall be in a better position to decide what need there is for further legislative interference for its protection and development, what direction it should take, and to what extent it should be carried. At present these important problems can be solved only in part and by indirect methods.

But although the statistics are not yet sufficiently developed to show whether the industry is steadily advancing in prosperity or otherwise, they are at any rate capable of giving a fair idea of its present value, and of the magnitude of the interests which are at stake. The total value of sea-fish of all kinds landed in 1891 on the coasts of the United Kingdom (including the Isle of Man, but excluding the Channel Islands) was, according to the last return, £7,009,000. This figure is given as representing what is known as the bare "landing value" of the fish, without any addition on account of freight, packing, curing, market tolls, or any of the other charges which go more or less to enhance its cost to the consumer. This estimate is, however, admittedly imperfect; but it errs on the side of moderation rather than excess. It includes the regular catches of the fishermen sailing or hailing from the principal ports and fishing villages, but it excludes the "takes" of the smaller communities scattered round our coasts, and the results of the desultory operations of men who are fishermen to-day and farmers to-morrow. It includes the value of "shell-fish," in which term both mollusca and crustacea are comprised, but it excludes that of the salmon fisheries, and takes no count of the minor products of fresh water, such as eels, trout, &c. With these exceptions it deals with the supplies of edible fish, but it ignores the yield of the whale and seal fisheries carried on in British vessels by British fishermen, who bring the produce thereof to British ports. On this last point the objection might possibly be raised that, the pursuit of the whale and the seal being carried on in waters far distant from our shores, it would be improper to include the produce of those animals in a statement relating to the fisheries of the United Kingdom. In earlier times the criticism might have been justified, but, if the principle were admitted that only the produce of British—*i.e.*, "territorial"—waters ought to be included, the figure quoted above would have to be reduced to far more modest dimensions. It is becoming more and more the practice for fishing operations to be carried on at a distance from the shore. The seas surrounding the coast of Iceland, for example, are as regularly visited by British fishermen for the sake of the cod abounding there

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

at certain seasons as are those of Greenland, Jan Mayen, or Labrador in search of the whale or the seal. This tendency on the part of sea fishermen to pursue their quarry in its own haunts, instead of awaiting its approach to the neighbourhood of their own shores, has to be reckoned with in many ways. It is influencing our relations with foreign Powers: it has called for special legislation of both an international and a domestic character: it must be borne in mind when interpreting the statistics of the industry. Of the sum of seven millions which, as shown above, may be taken as the approximate value at first hand of the edible sea-fish caught by British fishermen and landed by them at British ports, nearly five-sevenths are attributed to England and Wales, nearly two-sevenths to Scotland, and the balance, amounting to something less than one-twentieth, to Ireland. The actual figures in 1891 were as follows:—

England and Wales*	...	...	...	...	...	£4,870,572
Scotland	...	...	...	...	...	1,829,786
Ireland	...	...	...	...	...	308,627

Total £7,008,985

LOCAL DISTRIBUTION OF FISH.

THE first impression which these figures might convey is subject to considerable modification. They must not be taken as necessarily representing the proportionate share which either the fishermen of the three countries respectively, or the waters adjacent to each of them, contributed to the gross value of fish taken. Nor do they represent the relation which the inhabitants of the three kingdoms bear to each other as consumers of fish. To a certain extent, the figures follow the real facts of the case even with respect to such points—but only indirectly, and rather as a coincidence than as a consequence. The real signification of the figures is that England possesses more ports than Scotland, and Scotland more than Ireland, which meet the requirements of the fishermen in respect of proximity (1) to the best markets, (2) to the best fishing grounds, and (3) to their own homes.

The last consideration is becoming less and less important as improvements are made in the size, seaworthiness, and equipment of fishing vessels. Boats are able to remain at sea for days where formerly they could absent themselves from their own ports only for hours. The importance of the first and second points varies according to the nature of the fishery. If it is a “season” fishery, lasting for only a few weeks at a time, the fishermen are naturally anxious

* Including the Isle of Man, £14,800.

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

not to be absent from the harvest grounds longer than is absolutely necessary, and ports which at other periods are neglected become centres of activity. During the mackerel season, for example, certain harbours on the south-west coast of Ireland, which at other times are almost deserted, are crowded with fishing boats landing their catches faster than the special "fish trains" on the railway can carry them away or than the curers can dispose of them. The fish may fairly be called "Irish" fish; but while some of the boats belong to Irish ports and Irish owners and are manned by Irish crews, the majority of them hail from Cornwall, the Isle of Man, Scotland, or the east coast of England. Later on these same vessels will be found catching "Irish" or "Manx" herrings, which, however, they will land at English or Scotch ports. In both cases that place is selected for the purpose of landing their fish which combines proximity to the fishing grounds with readiness of access to a market. With these modern sea-rovers, who are equally at home in pursuit of mackerel or pilchards off the Cornish or Irish coasts, or of herring in the St. George's Channel, in the North Sea, or in the waters surrounding the Shetlands or the Hebrides, those two considerations are paramount. Like the fish which they follow, they are more or less migratory in their habits. Here to-day and gone to-morrow, they direct their movements according to those of their prey; and the fact that a certain quantity of fish has been landed at a particular place is not necessarily an indication that either the fish, or the boats that caught it, belonged to the neighbourhood. On the other hand, other classes of fishermen, in search of other varieties of fish more sedentary in their habits, are able to select a port, within easy reach of the fishing grounds, which, being in other respects suitable to their requirements, they make their own place of abode, and which becomes, as a natural consequence, the port of landing for their fish and of registry for their boats. The statistics relating to such a place may be taken as really representing a local industry; the fish landed there is caught by boats owned, registered, and manned in the locality, and in waters whose position is so well known and which are so regularly frequented by the same vessels that, though often situated far beyond the territorial zone, they may be almost said to "belong" to the port, or at any rate to be identified with its interests.

THE RISE OF GREAT GRIMSBY.

No better illustration could be given of the development of this phase of the fishing industries of the country than by a reference to the history of Great Grimsby—the "metropolis," as it has been called, "of the British fish trade"—whose case is all the more

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

instructive because it is typical also of the growth of several of the most important questions which call every year for more careful consideration in connection with the future of the fisheries.

Less than half a century ago Grimsby was an insignificant village and the beam trawl with which it is now so intimately associated was only just beginning to come into general use. Tradition spoke of the invention, in the days of the Black Prince, of an instrument of fishing which was dragged along the bed of the sea, whereby great abundance of fish used to be taken and much small fry destroyed, in consequence of which its employment was subsequently prohibited; but save perhaps at Brixham, and possibly at one or two isolated stations on the south coast, the use of the trawl in anything like its present shape was scarcely known. It seems probable that it is to the periodical visits of boats from Brixham and other west country ports that the east coast fishermen owe the introduction of the trawl; but, whatever its origin, they readily accustomed themselves to its use. The natural conditions were exactly suited to its successful employment. With stretches of smooth sand or mud, lying in comparatively shallow water, on which reposed various kinds of fish renowned for the excellence of their flesh, and some of which could not readily be taken by the methods of fishing ordinarily in vogue—what more favourable opportunity could present itself for trying the merits of a net fashioned with the express object of sweeping such fish up? Harwich, which had become an important centre for the long-line fisheries, took the lead in the “new departure,” and was for a long time the headquarters of the trawl trade. At first the experiment was limited to the sandbanks at a short distance from the shore, but excursions further out to sea revealed the existence in various directions of more and more prolific fishing grounds, which came to be distinguished by such names as the “sole pit” and the “silver pit”—names which adhere to them still, though, for reasons to be referred to later on, they have lost some of their original significance. The situation of Hull, in a sheltered estuary facing the centre of the most productive trawling grounds, naturally attracted to that port a large share of the new trade; but Great Grimsby had the advantage of being some twenty miles nearer to the sea, an advantage which gradually came to be recognised, not only by trawlers, but by those engaged in other modes of fishing.

“LIVE COD.”

ABOUT the beginning of the eighteenth century some Harwich boat-owners had introduced “welled” smacks for the purpose of bringing codfish alive to market. The “well” is simply a central portion of the vessel partitioned off by water-tight bulkheads extending

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

across its entire width and depth. A constant circulation of fresh sea-water is maintained through holes pierced in its bottom and sides, and fish placed alive in the well can be kept for a considerable time without trouble and without deterioration. Vessels thus fitted at one time brought live cod up the Thames to Gravesend and even to Greenwich, the idea being probably taken from the Dutch boats, which, so long ago as the reign of Queen Elizabeth, used to bring live eels to Billingsgate. The increasingly polluted state of the river, however, eventually drove the trade back to Harwich, where further expedients were devised for storing the fish alive while the smacks went to sea again, and the "cod-chest" or "trunk" was invented. This is a wooden box, constructed with interstices for the admission of water, which is moored, full of fish, in the sea until the time comes for sending its contents to market. It will be obvious that pure sea-water is essential to the success of this method of storing fish alive, and just as Harwich is better situated in that respect than London, so Grimsby is more favourably placed than Hull. For some time, however, the advantages conferred upon Grimsby by natural conditions were counterbalanced by the fact that Hull was served by a railway while Grimsby was not; but when the Manchester, Sheffield, and Lincolnshire and the Great Northern Railways ran there, placing it in direct communication with the great manufacturing towns of Lancashire and Yorkshire on the one hand, and giving it access to London by a shorter route than its rival on the other, its pre-eminence was secured, and it soon took its place as the most important fishing port in the world, with a fleet now numbering over 800 registered fishing vessels, of an aggregate measurement of 57,000 tons, or an average of 70 tons apiece, of which nearly 100 are steamers.

THE INTRODUCTION OF STEAM.

THE introduction of steam power into fishing vessels has been partly the cause and partly the effect of a complex series of changes which have of late years been occurring, and are still proceeding, in the pursuit of sea-fishing. With the increase in the distance from port at which fishing operations were carried on grew the necessity for more rapid means of bringing the fish home, and the system was adopted of sending out at intervals a quick sailing cutter to collect the catches of several boats and bring them home to market, thus not only ensuring the regular and rapid delivery of all fish taken—however small the individual catch—but enabling smacks to spend in fishing the time which would otherwise be occupied in running home and out again. The system can of course be adopted only where, as in trawling and long-lining, the position of the grounds to be visited can be fixed beforehand; but it

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

is applicable alike to fleets of boats fishing in partnership—where all share equally in the returns—and to individual boats working singly on their own account. In the latter case the term “general fleeting” is applied; in the former, the system is known as “bulk fleeting.” It was not long before the superiority of steam over sails as a motive power for “carriers” was recognised, and several steamers were built or adapted specially for this service. Then the idea occurred of utilising them as trawlers in the intervals between their carrying trips, the ease with which their speed could be controlled marking them out as possessing special qualifications for the purpose. But they did not realise expectations, and for some time the direct application of steam to actual fishing operations was limited to the winch used for hauling in the fishing gear. About twenty years ago, however, the same idea came to be put to a practical test in another way. Trawling smacks anxious to return to port or to “go a-fishing,” and becoming becalmed, would call in the services of a tug; sometimes the speed would be slackened and a trawl thrown overboard as an experiment, and often with the most satisfactory results. Then came a period of depression in the shipping trade, and tug-boats in search of an opportunity of turning to account their idle hours, and remembering these experiences, started fishing on their own account with a trawl shot directly from their own decks instead of from that of a smack. The result exceeded their most sanguine expectations, and “steam trawling” became the favourite occupation of tugs out of regular employment. From the Northumberland and Durham coasts the practice spread further south to the English Channel, then to the Bristol Channel, and thence northward to the Irish Sea. The experience thus gained has not been lost upon those more immediately interested in sea fisheries, and the numbers of steam vessels specially designed and constructed for the purpose and employed in trawling off various parts of the coast is rapidly increasing. The consequences of this rapid development of the trawling industry, and the call which has been made for legislation to meet them, will be referred to later on. In the meantime, in order to complete this sketch of the rise of Grimsby, and to show its importance as a fishing port, it may be stated that out of a total quantity of 233,532 tons of fish (excluding shell-fish) returned as having been landed at all the ports on the east coast of England and Wales in 1891, no less than 62,942 tons, or more than one-fourth, were landed at that one place alone. The pre-eminence of Grimsby as a port of landing for fish is even more strikingly shown by the fact that, excluding shell-fish from the comparison, the value of the fish brought there last year exceeded one-sixth of the total value of sea-fish landed on the shores of the whole of the United Kingdom.

Table showing the QUANTITY and VALUE of SEA-FISH RETURNED as having been LANDED in the year 1891 on the SHORES of the UNITED KINGDOM, distinguishing between ENGLAND AND WALES, SCOTLAND, and IRELAND respectively, and between the PRINCIPAL KINDS OF FISH.

FISH.	England and Wales.		Scotland.		Ireland.		TOTAL, United Kingdom.	
	Tons.	£	Tons.	£	Tons.	£	Tons.	£
Soles	4,134	517,146	887	30,214	190	15,560	5,211	562,920
Turbot	2,844	209,006	251	17,211	62	3,973	3,157	230,190
Cod	18,026	248,305	25,070	188,010	2,204	19,244	45,300	455,559
Haddock	87,027	884,135	36,290	375,538	1,045	13,081	124,362	1,272,754
Herrings	60,323	503,481	171,091	918,872	5,088	39,326	236,502	1,461,679
Ling	4,678	64,032	8,817	56,024	795	6,023	14,290	126,079
Mackerel	18,424	361,684	87	1,459	14,997	144,041	33,508	507,184
Sprats	5,785	12,834	181	308	290	502	6,256	13,644
Other kinds (except shell-fish) ..	97,062	1,690,395	21,515	166,351	5,882	53,893	124,459	1,910,539
Total	298,303	4,491,018	264,189	1,753,987	30,553	295,643	593,045	6,540,648
SHELL-FISH—								
Crabs	4,611,570	52,311	No. 2,805,250	15,384	No. 275,896	2,759	No. 7,692,716	70,454
Lobsters	730,298	34,444	677,244	31,366	211,668	7,128	1,619,210	72,938
Oysters	44,085,000	142,041	353,200	1,568	901,680	1,251	45,339,880	144,860
Other kinds	26,675	150,758	Tons. 15,470	27,481	Tons. 569	1,846	Tons. 42,714	180,085
Gross Value .....	....	£4,870,572	....	£1,829,786	....	£308,627	....	£7,008,985

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

VALUES IN ENGLAND, SCOTLAND, AND IRELAND.

THE foregoing table shows the relative quantities and values of the different kinds of sea-fish returned as having been "landed" in the three kingdoms in the year 1891. From the figures there given it would appear that England and Scotland run each other very closely in respect of the weight of fish landed, but that Ireland is credited with little more than one ton in every twenty of the total yield. In respect of estimated value, Ireland's proportion appears to be still smaller, and this is probably in accordance with fact, especially having regard to the intention that the estimate should be based on the value of the fish as it leaves the boat. It is, however, somewhat startling to find that every ton of fish landed in England should be valued in round figures at more than £15, while in Scotland and Ireland the worth of each ton is placed at £6. 10s. and £9. 10s. respectively. A closer examination of the figures, however, helps to explain the apparent discrepancy. Two-thirds of the total weight and half the total value of the fish attributed to Scotland are herrings, worth there a little more than £5 a ton, while in England and Ireland these fish, estimated at about £8 a ton, formed only about a fifth of the total quantity. Scotland, on the other hand, produced only 87 tons of mackerel, worth nearly three times as much per ton as herrings, against 18,424 tons landed in England, and nearly 15,000 tons in Ireland. Of turbot and soles, again, which average nearly £100 a ton, England and Wales possess almost a monopoly, nearly 7,000 tons being landed there, against a little over 400 tons in Scotland and Ireland combined—for it is to be remarked that the "soles" which figure in the returns for Scotland are exclusively the much inferior "lemon soles," worth only about a quarter the price of the so-called "common" sole. Of haddock, again, which figure all round at about £10 a ton, nearly twice as much was landed on the shores of England as on those of Scotland and Ireland combined; while of the several varieties of fish included under the general head of "other kinds," over one ton in thirty consisted in England of "prime fish" fetching over £50 a ton, whereas in Scotland and Ireland practically nothing worth more than £7 a ton was included under this designation. The proportions which sprats and ling bear to the general total in the three countries are not sufficiently large to appreciably affect the general comparison, and there remains for consideration only the entry of codfish. Of this fish Scotland contributes about 30 per cent more than England, and yet the value for that country is 25 per cent less. This difference is probably to be accounted for by the fact that the great bulk of the cod landed in England are "live cod," which always command good prices, while at least half the take in Scotland is either cured or pickled.

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

Bearing in mind the considerations before referred to, the conclusion seems a reasonable one that the figures given in the table represent, with a fair approximation to truth, the relative importance of the fisheries for sea-fish carried on from the shores of the three kingdoms.

SHELL-FISH.

THE returns so far quoted make no reference to "shell-fish," in which term are included both *mollusca*, such as oysters, mussels, cockles, and whelks, and *crustacea*, such as crabs, lobsters, and shrimps. It is both necessary and desirable to distinguish between such products and fish properly so called, because they are generally enumerated individually and not by weight, and because the weight when given represents about three times as much "shell" as "fish." Probably the most general feeling to which an examination of the figures relating to these products of the sea would give rise would be one of surprise at the disparity between the "landing" values given in the table and the market values quoted by the retail vendor to the ordinary purchaser. An ordinary sum in arithmetic would reduce soles and turbot at £100 a ton to very nearly 11d. per lb.; while herrings at £8 a ton would come to six-sevenths of a penny per lb., or less than a halfpenny per herring. Judged in this way, the profit on soles retailed from the fishmonger's slab at 1s. 6d. or even 2s. per lb., and on fresh herrings at 1½d. each, bears no comparison with the apparent increase in price which shell-fish undergo between the time they are landed and the time they reach the consumer. A shilling will buy a crab of but very moderate dimensions. But it would appear that, on an average, the English "crabber" sells eighty-eight crabs for a sovereign; that his Irish fellow will give a round hundred for the same sum; while their Scotch rival is content to give for one pound as many crabs as the Englishman and the Irishman together will give for two pounds.

The explanation may partly be found in the fact that a very large proportion of the seven-and-a-half million crabs landed on the coasts of the United Kingdom are of very small size. The law provides that no edible crab shall be taken or sold, for purposes of food, which measures less than $4\frac{1}{4}$ inches across the broadest part of the back. A crab of such small size seems hardly worth the taking, and one is seldom if ever seen in a market or shop; but very large quantities of them are hawked about in villages near the coast and in the poorer quarters of manufacturing towns, where they find a ready sale at the rate of one, two, or even three a penny; and there is not the slightest doubt that a very considerable proportion of the crabs brought ashore and sold in this way are below the minimum size fixed by statute. If these are eliminated from the calculation, the

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

average value of the remainder will be appreciably increased. The average landing value of lobsters—nearly a shilling each—bears a much more reasonable relation to the average retail price. Their numbers are only as one to five compared with crabs, and yet their total value is nearly the same. Their relative scarcity has emphasised the tendency of taste and fashion, and while the crab finds favour with the “poor man,” the lobster is reserved for the “rich man’s” table, and the effect is seen in the “value” column of the fishery statistics.

THE PRICE OF OYSTERS.

LITTLE more than a generation ago it was estimated that about 500,000,000 oysters were consumed annually in London alone. Less than one-tenth of that number are now “landed” on the coasts of the whole of the United Kingdom. The “succulent bivalve” is as popular as ever, or would be if the supplies could keep pace with the demand. Importations from abroad—from France, Holland, Portugal, and even America—do not suffice to make up for the deficiency in the yield from our local sources of supply. The high price of oysters is a byword: they are coming to be regarded as synonymous rather with threepenny pieces than pence: and yet the forty-five millions landed last year do not figure for a higher average value than a fraction over ninepence a dozen. Here, again, there is room for explanation. The explanation will probably be found in the fact that a very large proportion of the numbers “landed” consist of inferior “deep-sea” oysters, which sell at low prices, or of small or underfed oysters, which do not find their way to market till they have been deposited on suitable “layings,” and have remained there long enough to fit themselves, in size and condition, for the table. The oyster “planter” who buys such oysters does so at considerable risk, for he may have to wait for months, or even for two or three years, before they are ready for the market. Money and labour have to be spent in the interval in protecting them from numerous enemies, while if they escape them they may after all perish from disease, or from the effects of floods, or frost, or famine.

The “other kinds” of shell-fish include shrimps and prawns, crayfish, mussels, escallops, cockles, whelks, periwinkles, &c., the capture of which gives employment to large numbers of persons, including women and children as well as men, and which not only produce a considerable supply of food for the people, but are, some of them, even more important as affording a large proportion of those supplies of bait on which other and more valuable fisheries depend. This point will be referred to again later on. In the meantime the various methods by which the different kinds of fish are caught may be described.

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

FISHING NETS.

THE principal kinds of instrument of fishing for the different kinds of fish are (1) seine or draft nets, (2) drift nets, (3) trawl nets, (4) fixed or set nets, or engines, and (5) line and hook. The methods of use vary according to the usage of different localities and to the habits of the fish intended to be caught. The first two modes are used for those kinds of fish of gregarious and migratory habits, which swim near the surface of the sea, such as herrings, mackerel, pilchards, and sprats. The seine, in one of its forms and methods of use, is the oldest kind of fishing net extant. One end being made fast to the shore, the net is paid out from a boat in a semi-circular sweep, and then hauled ashore. The net is of sufficient depth to reach from the surface to the bottom of the water, and, its upper side being buoyed by corks and the lower side weighted by leads, it follows that every fish that is enclosed by it, and which cannot escape through its meshes, is caught. In this way, besides some of the fish above-mentioned, other kinds more local in their distribution, such as mullet, gurnard, whiting, sparling, &c., are taken promiscuously. In this case—

All's fish they get
That comes to the net.

“Blindhauling” is the somewhat reproachful term applied in Cornwall to this system of fishing. In that county by seine or “sean” fishing is understood the shooting of one or more nets in a complete circle in the water, so as to surround a shoal of fish. In cases where exceptionally large “schools” are enclosed, the net is securely moored in such a manner as to prevent the escape of the fish, and successive hauls of a smaller net, called a “tuck-seine,” are made until the whole catch has been secured. At one time this was the only mode of fishing for pilchards, but it is being superseded by the use of the drift net, with which, instead of waiting till the fish approach the shore, the fishermen go out to meet them in the open in deep water.

The drift net, buoyed and weighted like the seine, is shot in a line in the water across the track of the shoals of fish which it is desired to intercept. The mesh is regulated to such a size as to allow only the head of the fish to pass through on striking the net, when it is entangled by the gills (“gilled”) and cannot escape. Drift-net fishing, or “driving,” is carried on at night. Seining can only be pursued in daylight.

The trawl net is adapted for the capture of fish which frequent the bottom of the sea. For our supplies of the various kinds of “flat-fish”—soles, flounders, skate, plaice, turbot, brill, &c.—we are almost entirely dependent on the use of this net, while large quantities

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

of ling, haddock, and cod are also taken by it. The form of the net is that of a long, tapering, wide-mouthed purse, the upper lip of the mouth being straight, and the lower lip curving backwards in a wide sweep. The upper side of the net, known as the "back," is attached to a long beam of wood measuring sometimes seventy feet in length; at each end of this beam is fixed an iron shoe or trawl-head, somewhat after the fashion of the runner of a sleigh, the effect of which is to support the beam at a short distance from the sea bed; the lower side or "belly" of the net is edged with a thick rope, which drags along the bottom of the sea, and disturbs the fish lying in the track of the net as it is hauled or "trawled" along; these, darting upwards, are intercepted by the "back," and drop backwards into the lower end or "cod" or "purse" of the net, passing on their way through a funnel-shaped enclosure of netting which readily admits them, but effectually bars their way should they attempt to escape.

Fixed engines for taking fish are of varied form and material. Probably of greater antiquity than the seine net is the V-shaped wall of wattling or stone built on the shore below high-water mark in such a position as to intercept, as the tide ebbs, any fish which may have been carried behind it on the flood. Not many of these primitive structures remain on our coasts at the present day, their place being taken by lengths of netting suspended on stakes, in such a manner as to form traps for various kinds of fish, such as the "kettle nets" set for mackerel and herrings on the south-east coast; the "weirs" of Swansea Bay, which take these fish as well as cod, whiting, and plaice; and the "balk nets" of the Lancashire coast, in which "flukes" or plaice are taken.

Under the term "fixed nets" must be included trim tram nets and stow-boat nets—long bag-like nets, variously known in different localities, and differing in construction according to the particular use to which they are put. In the Thames estuary, the Wash, and the Solent they are made fast to an anchored boat, and employed for the capture of sprats, smelts, flounders, and whitebait. There are, besides, other local modes of fishing by fixed nets, not, however, of sufficient importance to be enumerated here.

LINE FISHING.

No method of fishing is of such universal application and, with the possible exception of the spear, boasts so great an antiquity as the hook and line. It differs from all other modes in the fact that it appeals directly to the senses of the fish for whose destruction it is intended. Nets and weirs depend more or less for their success on the fact that they are unseen, the fish being taken in them blindfold as it were; but the hook fisherman deliberately entices his prey by

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

dangling before it a bait attractive to the sense of either sight, smell, or taste. The method is applicable to all sorts of fish, and before the introduction of the trawl it was the chief source of supply of several kinds of fish now almost exclusively taken by that net. The most important line fisheries at the present time are those for cod, ling, halibut, skate, haddock, and conger. Two forms of line are used, the "long-line" and the "hand-line." The former consists of a string of lines aggregating sometimes nearly ten miles in length, to which are attached at a distance of a fathom and a half apart a series of shorter lines called "snoods," about four or five feet long, each carrying a baited hook. At daybreak the line is paid out from the boat, which takes as straight a course as possible, and when the whole length is "shot" stands by until the state of the tide is favourable for hauling in. The line is kept in position at the bottom of the sea by small anchors fixed to it at short distances apart, and its direction is indicated by small buoys attached at either end and at intervals of about a mile throughout its length, and carrying a flag on a short staff. The "hand line" is a much simpler affair. To the end of the line is fastened a leaden weight or "sinker," carrying a short length of wire, called a "spreader," fixed horizontally, and from each end of this spreader hangs a "snood" carrying one or more hooks. The line is then dropped overboard to the required depth, and held in the hand till a fish is felt to "bite," when it is hauled in. Various modifications in the form of lines and in their mode of use, as well as in the bait employed, exist to suit the peculiar habits of fish and the particular fancy of individuals. Other kinds of fish besides those mentioned above, such as whiting, pollack, turbot, flabs, hake, and even mackerel, are caught by means of hook and line, the pursuit being often followed for purposes of "sport."

THE USE OF BAIT.

THE question of bait supply is one of paramount importance to the line fisheries. The essentials of a good bait are that it shall combine attractiveness to the fish for which it is to be the lure with power to resist the destructive effect of prolonged immersion and constant movement in water. For the long-lines whelks are generally preferred on account of their toughness, mussels coming second in estimation. Odour, flavour, and external appearance are, in varying degree among different fish, the three elements of attractiveness. Of the various kinds of bait used the most "natural" in every sense of the word is a live sand-eel, which in certain parts is highly esteemed for the purpose; but artificial baits of various forms—whose only recommendation is their mere brilliancy, or their resemblance in form or colour to some object forming the natural food of fish—are in certain cases as

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

successful as purely natural baits. No artificial lure has, however, yet been successfully applied to the purposes of the great commercial line fisheries. The point is one which deserves, and is receiving, the most careful investigation, in view especially of the increasing scarcity of those baits which are most in demand. There are no returns showing separately the quantities of the different kinds of shell-fish taken other than those mentioned in the table, but it is generally recognised that the yield of mussels, at any rate, is falling off, and that some steps are necessary for increasing the supply of them, if in the interests of the line fisheries alone.

INSTRUMENTS FOR TAKING SHELL-FISH.

THE instruments for the taking of "shell-fish" are not very elaborate. For oysters and escallops, and sometimes for whelks, dredges are used, these consisting of an iron frame to which is attached a square-shaped bag-like receptacle, formed wholly or partly of iron rings interlaced. This is thrown overboard from a smack and hauled along after the fashion of a trawl. Mussels are taken in a similar manner in deep water, but in shallow water or on the foreshore they are raked up, or simply dug up with spades. Cockles and periwinkles are similarly gathered on the foreshore. Shrimps and prawns are taken in small beam trawls, or in hand or "push nets," which may be seen worked along the fringe of the sea on all parts of the coast where the shore is sandy. For crabs and lobsters traps are used, called, according to local peculiarities, "pots," "trunks," "creels," "rings," or "hoop nets." These vary in shape from the quasi-spherical "pot," made of wicker-work, with a funnel-like entrance through which the crustaceans can pass in but not out, to a simple circular ring supporting a shallow conical-shaped bag. The method of use is the same in all. They are baited—those for lobsters with stale bait, those for crabs with fresh fish—and left in the water suspended from a rope, the other end of which is buoyed. The part which shell-fish play in the bait question is a curious one. Considerable numbers of fishermen, for instance, earn their livelihood solely by supplying their fellows with whelks for bait; and it is very probable that a large proportion of the fish of various kinds, taken expressly for purposes of bait, do not appear at all in the returns of fish brought ashore. The round of processes which has at times to be undertaken before the whelks are caught is a curious illustration of the manner in which the tastes of different fish have to be studied when bait has to be used. The whelk itself is caught by means of bait by a process called "trotting." Small crabs are strung on a line and suspended in the water, and the whelks which come to feed on them stick so closely

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

that they do not loosen their hold till they are forcibly pulled away by the "trotter." Crabs of various kinds are used for the purpose, even the common shore-crab will do; but in order to get a sufficient supply of crabs it is sometimes necessary to set traps for them, which have to be baited with pieces of herring, or other fresh fish. Before the days of railway facilities for the transport of fish to market, crab fishers who had a sale for crabs but none for other fish have been known to cut up turbot, red mullet, and other valuable kinds for the purpose of baiting their crab pots. Sometimes, when other bait for crabs has been scarce, and when the cod, which are voracious feeders, have been gorging themselves with herring, the long liners cut some of the largest fish open in order to provide bait for the crab pots. And so the circle is completed. Whelks are used as bait for cod, from which herrings are taken; these in their turn become bait for crabs, which again serve as bait for whelks. In the Shetland Islands the circle is smaller; a cod's head is commonly used as a bait for whelks.

CONFLICTING INTERESTS.

In some cases the different branches of the fishing industry are prosecuted in complete independence of each other; in others, where two or more methods are carried on in the same waters, there is a conflict of interest often giving occasion for problems of no little difficulty. The Irish mackerel fishery, which accounts for considerably more than one-half of the whole value of fish landed in Ireland, is carried on almost exclusively off the south-western coasts of the country. Attempts are being made to extend the operations of the fleet engaged in it to waters further north, but at present three-fifths of its whole produce are landed at four ports in the county of Cork in the course of three months, during which time it monopolises the whole energies of the local fishing population, whose zeal is stimulated by the competition of a fleet of English, Manx, and even French boats, whose combined crews often outnumber them. The whole coast with its adjoining seas is given over to mackerel fishing, and this single branch of the fisherman's calling is supreme.

What the mackerel fishery is to Ireland the herring fishery is to Scotland. More than one-half of the total value of the fish brought into Scottish ports is contributed by herrings. Considerably more than one-half of the total catch of herrings is taken on grounds adjoining the ports on the east coast, and two of these ports alone are answerable for a greater value of herrings landed than all the others put together. Everything is for a time subordinated to the one industry of catching and curing herrings. In neither of the cases mentioned is there any interference with or by any other branch of

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

fishing; in neither is more than one kind of instrument in use at the same time on the same fishing ground. Far different is it in other instances, where at the same time and in the same locality several different kinds of fish are pursued by fishermen using different kinds of instruments, or where various modes of fishing are employed for the capture of the same sorts of fish. Under such circumstances complaints of interference by one class of fishermen with the operations of another are frequent. The use of the drift net, for example, is denounced on the ground that it has the effect of breaking up the shoals of fish and frightening them away from the shore. To this cause the Cornish seine net fishermen attribute the recent steady decrease in the take of pilchards. Of other instruments it is alleged, as by drifters of the seine net and by fishermen of all classes of the trawl, that they cause undue destruction of small fish or of fish spawn; while against those who follow certain modes of fishing the serious charge is made that they not only accidentally but often wilfully cause damage to the gear of others.

A SKETCH OF FISHERY LEGISLATION.

THIS allegation is made more frequently perhaps of trawlers than of all other classes of fishermen put together. The case of the trawl may therefore be taken as typical of this phase of what may be called the "politics" of the fishing industries; and not only so, but the trawl is more directly responsible than any other kind of net for the introduction of the international element into fishery politics. Where fishing is limited to territorial waters, it is comparatively easy to enforce obedience to regulations, whether framed for the protection of the fish or of the fishermen and their property. In such a case there would be no difficulty, for example, in securing redress for injury done by a trawler improperly breaking through the nets or carrying away the lines of another fisherman. It would even be possible to provide a remedy for a similar wrong committed on the high seas as between fishermen of the same nationality; but such occurrences beyond territorial limits, and between subjects of different Powers, could only be dealt with by international agreement and legislation consequent thereon. Laws affecting the rights of fishermen in the territorial waters round our own coasts have been in force for centuries. Legislation either defining the seasons during which fish might be taken, or fixing the size of the fish to be taken, or of the mesh of nets for taking them, or prohibiting the use of certain instruments altogether, dates back to as early a period as the reign of the first Edward, and between that time and the reign of George III. Act after Act was added to the statute book with the object of preventing the destruction of small fish

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

of fish out of season—in other words, for preventing over-fishing. When commenced a series of Acts for the “encouragement” of the fisheries, by granting bounties on vessels fitted out for fishing purposes, or on the quantity of fish brought home and exported.

THE “POLICE” OF THE SEAS.

The present reign has seen the repeal of both these sets of Acts and the enactment of a series of regulations, having for their object rather the protection of the fisheries than of the fish. By degrees a regular system of “police”—using the term in its widest sense—has been established. Marks have to be attached to fishing vessels to ensure their easy identification; special lights have to be carried at night according to the particular branch of the industry they are engaged in; rules are laid down for preventing or minimising the mischief arising from the fouling of each other's gear by rival fishermen. The great extension of deep-sea fishing has required that these regulations should apply to the high seas as well as to territorial waters, and to all persons of whatever nationality; and for this purpose international agreements have been entered into imposing uniform restrictions on the subjects of all the Powers concerned when fishing within certain limits.

The first step in this direction was taken in 1839, when a convention was concluded between this country and France, having for one of its principal objects the adoption of joint regulations “with a view to prevent the collisions which now from time to time take place on the seas lying between the coasts of Great Britain and of France between the trawlers and the line and long net fishers of the two countries.” For reasons into which it is unnecessary to enter here, the contemplated arrangements have not worked smoothly; but in the meantime the importance of the fisheries in the Channel has been eclipsed by those of the North Sea, where the subjects of half-a-dozen States ply their calling all the year round.

The necessity for the adoption of a common code of regulations for the “police” of the fisheries in the North Sea was brought home by the action of certain Belgian trawlers, who used deliberately to sail through the fleets of drifters, and ruthlessly cut their nets in order to free their own gear whenever it became entangled in them, using for the purpose an instrument in the shape of a grapnel with a cutting edge, which they trailed after them. This instrument English fishermen promptly named the “Belgian Devil,” and so loud were the complaints of the injury done by its use, and of the absence of all means of redress, that official inquiry was called for, resulting in diplomatic representations, and eventually in the conclusion of the convention known as the North Sea Fisheries Convention of 1882, to which all the Powers bordering on the North Sea are parties,

except Sweden and Norway, for whose subsequent adhesion, however provision is made. This convention was followed by another having for its object the regulation of the unlimited traffic in spirituous liquors among the fishing fleets in the North Sea, to which so many evils had been traced.

The only object of these measures and of the legislation consequent thereon is the maintenance of order, for which purpose each Power is authorised to equip a fleet of gunboats or cruisers with power to seize, search, and, if necessary, detain offenders. The regulations are strictly analogous to those under which vehicular traffic is controlled and drunkenness repressed in the streets of a town. No question is either the "protection" or the "encouragement" of the fisheries involved in them. As far as the "encouragement" of the fisheries is concerned, the days are numbered—at any rate in this country—in which any such stimulus as the offer of bounties is needed to induce greater enterprise on the part of the fishermen. On the other hand measures are being demanded for in some way limiting their operations—for "protecting" their industry in a very different sense. The word "protection" as applied to the fisheries has an opposite meaning to that in which it is used in connection with trade generally. What is asked is, not that inducement shall be held out to a greater number of persons to embark in the industry, but that restrictions shall be placed on the operations of those already engaged in it.

"OVER-FISHING."

THE great development of trawling and the application of steam power to that branch of the industry have lent additional force to the cry—which has been heard at intervals for the last six hundred years, and which has from time to time influenced the course of legislation on the subject—that the draught which is being made on the stock of fish in the sea is so great that it must have a prejudicial effect on future supplies. At the present time attention is particularly directed to the question of the destruction of small fish, and especially small flat-fish. That enormous quantities of small fish are destroyed by certain modes of fishing, and that such destruction is increasing is undoubted, and it is argued that unless this is checked the supply of adult fish must eventually be affected. As already pointed out similar prognostications have in former times been uttered with respect to various kinds of fish. A failure in any locality of the herring fishery—and probably in no branch of the fishing industry have such extraordinary fluctuations been observed as in the herring fishery—has been attributed, among numberless other causes, to over-fishing; but the stock of herrings in the sea is as great as ever if the increase in the average annual yield is any criterion.

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

But just as, in considering the question of the effect of man's operations on the stock of fish, distinctions must be drawn between creatures of purely local and sedentary habits, like "shell-fish" and fish properly so called, or between fish like the salmon and those whose habitat is limited to the ocean, so the case of the flat-fish is distinguishable from that of the herring, the cod, and others whose migrations extend over an almost illimitable range. The habit of flat-fish is to remain at or near the bottom of the sea. Their vertical range is limited, but in warm weather they will spread themselves out in all directions wherever the bed of the sea consists of muddy or sandy stretches, and commonly towards shallow water. At the approach of cold they withdraw into deep hollows, and it is noticeable that a severe winter generally coincides with an increased take of these fish in the deep submarine valleys of the North Sea. It was during a sharp winter that the "silver" and "sole" pits acquired their reputation as the most productive trawling grounds ever known, and, although no single boat ever makes the hauls there now which were made in their pristine days, they are still the favourite resort of large numbers of trawlers. It would certainly appear more possible to make an impression on the stock of such fish than on that of pelagic nomads like the herring or the cod; while the possibility has been increased by the application of steam to trawling vessels, whereby the efficiency of the trawl has been greatly enhanced. These developments of the trawling industry lend additional force to the complaint that this method of fishing is responsible not only for an enormously increased take of marketable fish, but for an immense destruction of immature or undersized fish of little or no value, until this has become one of the most "burning questions" of the day in connection with the fishing industry.

A DIFFICULT PROBLEM.

It is not intended in this place to enter fully into all the bearings of this large and difficult problem, but it may be useful to point out some of its intricacies, which may be done more readily by reference to a concrete case than to generalities. There is probably no fish whose extinction would be more widely regretted than that which is scientifically known as the "common sole." Whether this species is really being "fished out" may be a question, but it seems to be generally felt that it is beginning to deserve its distinctive name only on the principle of *lucus a non lucendo*. It is true that the returns show no falling off in the quantity of the fish brought ashore, but it is claimed that the yield is not proportionate to the increased catching power of the machinery employed, that every year a

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

larger proportion of the yield is made up of small fish, and that the supply is maintained at the cost of the destruction of future stock in the shape of tiny soles too young to be of any use, and caught only to be thrown back, dead and dying, into the sea. It may be remarked that a large proportion of the fry thus destroyed are not really edible "soles" at all; many of them are known to be the young of a variety—viz., *solea minuta*—of no value as human food, but with regard to which it has to be shown whether they eat the food of, or are themselves eaten by, more valuable fish before it can be decided whether their destruction is a thing to be discouraged or not. With respect, however, to the true "sole," it must be admitted that large quantities of its fry are destroyed by the trawl.

Whether or not this destruction bears any appreciable proportion to that which occurs in the ordinary processes of nature, it may be granted that it is desirable to obviate it if possible. To make it a penal offence to take young soles would be obviously impracticable. Something might be done by prescribing a minimum size for the mesh of trawl nets, but such a regulation would be difficult of universal enforcement, and its effect would be constantly neutralised by the fact of mud, sand, weed, and even large fish, clogging the meshes and preventing the escape of the small fry. If, again, the size of mesh were to be fixed, it would be futile not to determine its dimensions with a view to the escape of the larger fry—of fish, say eight or nine inches long which have escaped all the perils of extreme youth, but which have not yet attained a fairly marketable size; but a limit adapted to this object would be either too small for certain kinds of fish, whose preservation is equally desired, or so large as to place unnecessary and objectionable restrictions on the capture of others. It is obvious, for instance, that any limitation on the size of the mesh of the shrimp trawl, which would be of the slightest possible benefit to the soles, would at the same time necessarily destroy the shrimp-trawling industry.

"UNDERSIZED" FISH.

THE mention of shrimp fishing suggests the distinction between "inshore" and "deep-sea" trawling, and generally between regulations applicable to territorial and extra-territorial waters respectively. So far as the deep-sea fisheries are concerned, any limitations to be either effective, fair, or practicable must be adopted by international agreement; but it is within the sole competence of each State to enforce restrictions on fishing in its territorial waters, and certain regulations have within the last three or four years been imposed locally on methods of fishing for sea-fish

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

which have been deemed prejudicial. On some parts of the coast, for example, trawling has been limited or altogether prohibited. As an indirect method of reaching the deep-sea trawlers, it is now proposed that the sale of certain kinds of fish under specified sizes shall be prohibited. The proposal is open to the objection that such a prohibition can in itself have no effect on the capture of undersized fish, which will still continue to be taken; and that, while the return to the water of such of the larger and more vigorous fish as may remain alive uninjured will be an advantage, the others that are killed will be absolutely wasted, unless indeed a market for alive and dead alike is found in other countries where no similar prohibition exists. On this point it may be remarked that some foreign Powers have already initiated legislation of this nature—a fact which seems to pave the way for the adoption of the same measurements in all cases, whether by international agreement or otherwise.

The above statement by no means sets forth all the difficulties by which this particular problem in fishery politics is surrounded, but it may be taken as sufficiently indicating the points to be considered in connection with it. If the proposal to fix a standard size under which any particular size of fish may not be sold be accepted in principle, the determination of the precise limit in each case will open up a further series of debatable questions. Influential representatives of the North Sea trawling trade who advocate the principle have suggested certain sizes as applicable to the conditions under which their industry is carried on, but these are objected to by fishermen trawling in the English Channel as by no means suitable to the circumstances peculiar to their case. The soles caught in Torbay are said to be thicker and broader than those of the North Sea, but to run so much shorter that, judging by length alone, a Brixham fisherman could not afford to lose a fish which a Grimsby smacksman might well be content to return to the sea. To be of practical effect, again, the size fixed upon for one kind of fish must to a certain extent govern that fixed for another. Soles, for example, are caught by the same net, on the same ground, and at the same time as plaice; but a sole of considerable length will pass through a mesh which will stop a plaice proportionately very much shorter. If the limitation on the size of fish to be sold is to have the effect anticipated, the fishermen will so adjust the size of their mesh as to facilitate the escape of fish below that size; but a sole is so much more valuable than a plaice that, when fishing on ground containing both soles and plaice, a fisherman will use the mesh best calculated to retain "sizable" soles without regard to the size of the plaice that may be caught, with the result that many of the latter under the standard will be captured only to be thrown overboard again.

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

"IMMATURE" FISH.

ANOTHER consideration which should have some weight in determining this question is the size at which different kinds of fish reach the adult stage, or, in other words, are capable of reproducing their species. It is a common occurrence for small fish to be classed as "immature," but the expression is probably often inexact, since there is reason to believe that some fish are so fully "mature" as to have produced milt or ova* before they have attained an ordinarily marketable size. It may be a question whether the progeny of such fish is as vigorous as that of older specimens, but if reproduction is an ordinary occurrence among such fish the fact must have an important bearing on the inference commonly drawn as to the effect of their capture on the future stock. On the other hand, some fish do not probably attain sexual maturity until they have reached a size larger than that at which they might be said to be marketable. Investigations now being carried out on this subject will no doubt do good service in elucidating these and other similar points.

PROBLEMS AWAITING SOLUTION.

FURTHER research into the natural history of fish is much desired, especially into questions affecting their migrations, their spawning, and their food. One illustration of the effects of temperature on the migration of fish has already been given; but what would not a fisherman give if he could tell by reference to the thermometer, the barometer, or by any other easily accessible sign, whether the fish are staying out in deep water or heading for the shore, and if he could always connect their movements to and from the shore with their search for food or the approach of their spawning seasons? On increased knowledge on such points both legislation for the advantage of the fisheries and the success of the fisherman in his calling must largely depend.

As far as the fishermen themselves are concerned, they are, as a body, curiously uninformed on many of those subjects a knowledge of which could be more easily attained by them than by anyone else, and would be of the greatest practical benefit to them. It is of course easy to understand that those engaged in a laborious and hazardous occupation like that of fishing are not anxious to devote

* On this point it may be remarked that care must be taken to distinguish between reproduction in the ordinary way and the result of laboratory experiments with ova and milt artificially extruded. It has, for example, been shown that the milt taken from a salmon smolt is capable of fertilising the ova of an adult salmon; but this is a very different thing from saying such a smolt has attained sexual maturity, and that such results would have been produced in the ordinary course of nature.

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

their few intervals of rest to the pursuit of investigations which, however ready to hand the material, call for the exercise of constant watchfulness, and of faculties specially trained to distinguish between what is real and what is only apparent; but there are many elementary questions, the answers to which might be found by the most ordinary observation, on which fishermen, as a rule, are entirely ignorant. Fish, for example, are often "gutted" out at sea, but a very large proportion of those engaged in the operation would be unable to say of what the food of such fish consisted at different times or places, at what seasons they contained ripe spawn, or what was the appearance of the spawn. The long controversy with respect to the damage alleged to be done to the spawn of fish by the use of the trawl is an illustration of the difficulty of obtaining trustworthy information from the fishermen. For years it was maintained—and probably is in certain quarters still believed—that the spawn of fish is commonly deposited on the bed of the sea, whence it is necessarily torn up by the trawl, and the presence in the trawl of various objects supposed to be fish ova was referred to in support of the contention. It has, however, been ascertained that the spawn of cod, mackerel, plaice, and soles, among other fish, floats on or near the surface of the sea, and that it is the exception for sea-fish to deposit their eggs at the bottom, as is the case with the herring. Again, many of the so-called specimens of "spawn" have been found to be either not fish spawn at all,* or the eggs of species of no marketable value, as of the lump-sucker. On many parts of the coast notable instances are to be met with of fishermen who have turned to good account their opportunities for observation, and have made a reputation for themselves as competent naturalists; but such cases are exceptional. The county councils—especially of maritime counties—have here a fine field for the exercise of their powers under the Technical Instruction Acts in calling the attention of fishermen all round our coasts to the various problems which await solution, in allotting particular points to particular individuals,

*An instance which came quite recently within my observation may be mentioned: The fishermen of village after village on a certain part of the coast asserted with complete unanimity, and with reiterated asseveration, that they knew the spawn of plaice, because after the approach of these fish to the shore they had seen patches or lumps of what they called "blebs," sometimes white, sometimes green, sometimes red; that these "blebs" were the eggs of the plaice, and that they "grew and grew" till they burst, producing the young fish which they afterwards caught in their shrimp nets. None of them had ever thought to cut a fish open to see if the spawn contained in it had any resemblance to these "blebs;" they were satisfied with the conclusion they had drawn, and nothing would shake their belief. I have never been able to procure a specimen of these "blebs" for identification. From the description they might be anything from *medusæ* or *actinæ* to certain kinds of spawn; but most certainly they were not the spawn of plaice.

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

and in teaching them how to direct and record their observations, how to preserve specimens, and generally to co-operate with those students ashore who, having better appliances and greater leisure, have fewer facilities for the collection of the necessary materials for examination. The interest which county councils must have in encouraging research into such subjects is increased by the fact that at any rate in England and Wales, they have a considerable voice in framing and enforcing of regulations for the development of the fisheries.

SALMON AND INLAND FISHERIES.

ATTENTION may now be diverted from the more purely "sea" fisheries to those carried on in or more directly connected with inland waters. Under this head must be placed fisheries for salmon, sea-trout, and other varieties of migratory salmonidæ. Although the great commercial fisheries for salmon are carried on in the sea or in estuaries, they are entirely dependent for the maintenance of their supply on the periodical visits of the spawning fish to fresh water, in which the young fry are hatched and nurtured. It is this fact which places the salmon fisheries on so entirely different a footing from sea fisheries in general, and which has called for special protective legislation on their behalf. In very early times the possibility was recognised of completely destroying the production of salmon, so far as any particular river was concerned, by cutting off by means of dams or other obstructions the ascent of the breeding fish to their spawning beds. The Thames was at one time a productive salmon river. The weiring of its upper waters was one of the principal causes of the decline of its productiveness; the increasing pollution of the lower waters completed the mischief, and the salmon fisheries of the Thames are a thing of the past. Pollutions have, indeed, become a worse evil than weirs. Whole watersheds have been practically denuded of fish life by pollutions, and must remain so as long as the pollution continues; but the effect of weirs can be to a certain extent mitigated by fish-passes. If certain rivers now fishless were to be purified there might be some hope of restoring them to the list of salmon-producing rivers even though their weirs remained. As things are they are not only worthless from a fishing point of view, but they are in many cases useless for all industrial purposes and are frequently an actual source of danger in a sanitary sense. It is the custom to argue that the interests of the fisheries are so small compared with the vast industrial pursuits which are responsible for a large share of the filth poured into our streams that they must necessarily be subordinated to them. Fortunately it is beginning to be recognised that these same pursuits are becoming the victims of their own practices—throwing away as "waste"

 THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

substances which they might turn to profitable account, and thereby contaminating the water flowing past their doors to such an extent that they have to pay large sums for pure supplies from other sources.

River pollution is a modern addition to the list of drawbacks with which the salmon fisheries have to contend, and the more loudly they call for protection from it the more do they need protection from other dangers. The temptation to spear the breeding fish as they disport themselves, an easy prey, on the spawning beds of the narrow and shallow brooks, or to catch the silvery smolts as they descend in shoals on their first visit to the sea, is as great as ever. Hence the necessity remains for preventing illegitimate fishing of this kind, while increased skill in the construction and use of instruments of fishing has called for restrictions even on the recognised modes of taking salmon. The regulations in force on this subject are intricate, and the machinery for their enforcement somewhat elaborate, but it may safely be said that but for them the value of the salmon fisheries of the United Kingdom would have been so insignificant as hardly to deserve mention. Thirty years ago, when the laws on the subject were remodelled and began to assume their present shape, many streams which are now moderately productive were almost destitute of salmon. The present annual value of the yield of this fish in the three kingdoms has been put at about £700,000—viz., £120,000 in England and Wales, £220,000 in Scotland, and £360,000 in Ireland.

Of the value of the purely "inland" or "fresh-water" fisheries, as for trout, eels, lampreys (which are in demand as a bait for deep-sea fishing), pollen, &c., there are no definite returns. In Scotland there is a prejudice against eels, and they are not much fished for, but there are many rivers in which the capture of these fish might become a profitable industry. In England and Ireland, however, they are taken in great numbers. Trout are more generally caught for sport than as an industry, but their aggregate value must be considerable. Altogether the produce of the fresh-water fisheries may be put down as worth not less than £250,000 a year.

Adding these figures to those previously quoted as representing the produce of the sea fisheries, we have in round numbers a total of nearly eight millions sterling as the annual value of the produce of the fishing industries of the United Kingdom.

THE CAPITAL AND LABOUR EMPLOYED IN THE FISHERIES.

THE materials on which to base an estimate of the number of persons engaged in these industries and the amount of capital invested in them are more scattered, and when they are brought together it is found that the available statistics are made up on

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

different principles and do not furnish the same data. The navigation returns give for each of the three kingdoms an approximate return of the number of fishermen resident within the limits of the several ports, together with particulars of the number and tonnage of "registered" boats, but there is reason to believe that a large number of boats which ought to be registered do not comply with the law in this respect. Again, while in Scotland and Ireland all boats are required to be registered, in England "undecked" vessels not going beyond territorial limits are specially exempt from this regulation, so that we find the Registrar-General of Shipping takes cognisance of only 115 "third-class" boats, aggregating 246 tons, in England and Wales, while in Scotland he returns 1,245, and in Ireland 3,658 of such boats, of an aggregate tonnage respectively of 2,535 and 6,277 tons. The Scotch Fishery Board furnish returns which appear to include all vessels engaged in fishing in Scotland, irrespective of their port of registry, and whether employed regularly or only temporarily in fishing, as, for instance, such boats as are pressed into the service of the herring fishery when at its height. In this way the 1,245 "third-class" boats of the Registrar-General's statistics are multiplied more than fourfold in the Fishery Board's tables, where they are entered as 5,342 boats of 12,159 tons—this figure probably including also many boats engaged not directly in fishing, but in subsidiary operations.

It is obvious, however, that in framing an estimate of the extent to which the fishing industries give employment to labour and to capital a uniform method must be adopted, and it seems reasonable to base such an estimate on the returns relating to the places of residence of the fishermen and the ports of registry of their boats. To include the same men and the same boats in the returns for all three kingdoms, because they happen at different seasons to frequent the harbours of each, would be misleading. In the following table, therefore, each country is credited with the number of vessels actually registered at its various ports, with an addition on account of the estimated number of unregistered third-class boats belonging to England and Wales—this estimate being based on local returns. Similar figures are given for the Isle of Man and the Channel Islands. As regards the value of the boats and gear, the only official returns published are those relating to Scotland, and those figures are made the basis of the calculation so far as it refers to the rest of the United Kingdom, with the necessary modifications to allow for the larger average size of English vessels. The excess in the gross tonnage of English over Scotch or Irish vessels is especially remarkable in the case of those of the "first class," which includes boats of 15 tons and upwards, the average tonnage of such vessels in England being given as nearly 50 tons, against a trifle over 20 tons in Scotland,

*Table showing the ESTIMATED NUMBER of FISHERMEN and of FISHING VESSELS, and the APPROXIMATE
VALUE of such VESSELS and their FISHING GEAR, employed in the FISHERIES of the UNITED
KINGDOM.*

	No. of Resident Fisher- men.	NUMBER OF FISHING BOATS.						VALUE.		
		First Class.		Second Class.		Third Class.		Boats.	Gear.	Total.
		No.	Tons.	No.	Tons.	No.	Tons.			
England & Wales	34,000	3,873	183,421	4,075	23,948	3,500	7,000	1,100,000	1,200,000	2,300,000
Scotland.....	33,000	3,705	77,533	6,582	26,228	1,245	2,535	825,000	730,000	1,555,000
Ireland	10,650	444	11,792	2,986	10,644	3,925	6,477	270,000	200,000	470 000
Isle of Man	900	286	6,236	99	606	50	100	38,000	37,000	75,000
Channel Islands..	650	11	241	237	611	100	200	15,000	13,500	28,500
Total.....	79,200	8,319	279,223	13,979	62,037	8,820	16,312	2,248,000	2,180,500	4 428,500

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

and, remarkably enough, 26 tons in Ireland. This difference is largely due to the greater number of steamships registered in England as used for fishing purposes. The returns account for 459 of such vessels, averaging 50 tons each, as against only 89, averaging 31 tons, in Scotland, and six, averaging 18 tons, in Ireland. Allowing for the value of these steamers at the rate of £20 per ton, they represent a capital outlay of £440,000, or over one-fourth of the total fishing-boat capital of the country.

With respect to the number of persons ordinarily following the avocation of "fishermen," the census returns would no doubt afford the most complete statement, but, while the figures for Ireland have been published, those for England and Scotland had not, at the time of writing this paper, been issued. So far, however, as can be judged from a comparison of all the available statistics, the foregoing enumeration must approximate very closely to the actual facts of the case.

SUBSIDIARY INDUSTRIES.

THE total of 79,200 "fishermen" must be taken as representing only those who follow fishing as their main occupation—probably as their only avocation. There are, besides, large numbers of men and lads and of women, too, who are occasionally employed in fishing, and possibly even larger numbers in various employments immediately incidental to the actual operations of fishing, such as cleaning, curing, and packing the fish, to say nothing of those engaged in secondary industries such as net, line, and tackle making, barrel making, boat building, &c. The returns of the Scotch Fishery Board show that, in addition to the 33,000 regular fishermen accounted for in the table, the sea fisheries of Scotland give temporary employment to some 12,500 men and boys as fishermen, to over 1,000 persons as "curers," to more than 2,500 coopers, and to nearly 50,000 others as "gutters," packers, and general labourers. These figures afford no criterion of the numbers similarly engaged in the rest of the United Kingdom. Herrings are the staple product of the Scottish fisheries, and the greater part of these fish are cured in barrels for exportation, while a considerable proportion of cod, ling, and hake are treated in the same way. Thus, out of a total of nearly 3,500,000 cwt. of herrings landed in Scotland last year, only 750,000 cwt. are calculated to have been used in a "fresh" state. The rest, representing 1,126,072 barrels, were "pickled." In order to secure the due treatment of the fish in as short a space of time as possible after being caught, every available "hand" is engaged and kept at work at high pressure during the comparatively brief seasons. In England, on the other hand, the fluctuations in the demand for labour of this kind are not so great. The east coast

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

herring fisheries, the south and west coast mackerel and pilchard fisheries, give occasion for exceptional pressure at certain seasons, but not in so marked a degree as in Scotland, and the practice of preserving fish in barrels is much less common. The same remarks apply to a certain extent to Ireland, where, however, efforts are being made to encourage this system in connection with the mackerel fisheries. Owing to the more varied nature of the produce of the English fisheries and the consequent comparative regularity in the supplies, together with the existence of large and ready markets for fresh fish, such subsidiary occupations as are referred to give employment to fewer hands but for longer periods, and at such a port as Grimsby, with its great fish-docks, large numbers of men are engaged from year's end to year's end, who in Scotland would be taken on for a few weeks only in each year. The collection and distribution of ice among the east coast trawlers is in itself a considerable industry, far more constant than the analogous one of supplying salt and staves, or barrels, to the Scotch herring shers. The practice of preserving fish in tins is growing in both England and Scotland, and gives employment to a considerable number of persons and to no small amount of capital.

THE HAZARDS OF SEA FISHING.

To return, however, to the persons actually engaged in fishing, it would appear that at least 80,000 persons are constantly employed in this pursuit, and that at certain seasons about 120,000 British subjects may be found catching fish in one way or another in the waters surrounding these islands. From very early times the fishing fleets have been looked upon as a "nursery" for sailors to man the mercantile marine and the Navy, and the avowed object of some of the laws under which special privileges were accorded to fishermen was to encourage the pursuit of a calling well calculated to train men in the art of seamanship, in the idea that recruiting for the Navy would be facilitated thereby. However this may be, attention has in recent years been directed to the adoption of precautions for ensuring the safety and welfare of a body of men following an occupation which has other claims on public interest, both in its perilous nature* and in the important service which it renders in the matter of food supply. Speaking broadly, rights of navigation are paramount over those of fishing, but even in so fundamental a matter as that of lights and signals at sea, the general laws regulating shipping traffic have been modified in order to protect the interests of sea fishermen. A fishing boat riding to her nets, or a

* In this connection the fact should not be overlooked that the crews of the boats are mainly drawn from the fishing population.

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

vessel under way with her trawl down, or a trawler, again, with her net fast in a wreck or other obstruction, but otherwise under control, must obviously be placed in different categories from ships either navigating the seas free from such impediments, or simply anchored or disabled. In these and other respects the peculiar requirements of the fishing industries have necessitated special regulations, the framing of which has demanded, and still calls for, the most anxious consideration. For what may be called the protection of fishermen against themselves, the law requires evidence of knowledge of these regulations, and of the possession of a certain standard of seamanship on the part of those who aspire to take charge of a fishing boat; and skippers and others are prohibited from taking their boats to sea unless they hold a certificate of competency. Casualties of all kinds are subject to special investigation, and failure to report them in due course involves heavy penalties. It is satisfactory to find that there is a tendency to a diminution in the number of fishermen recorded as having lost their life at sea. The total deaths so reported last year were 268, as compared with an average annual loss since 1880 of 277. Of these, 174 were due to wreck or other similar casualties, 82 to personal accident, such as falling overboard, and 12 to suicide or natural causes.

CO-OPERATION IN THE FISHING INDUSTRIES.

THE increased size of fishing vessels has not always been accompanied by a corresponding addition to the number of their crews. Steamers, of course, are responsible for an addition to the number of persons engaged in "fishing," for although the "engineers" in charge of a steam trawler's engines do not appear in the list of "fishermen," they might clearly be included in the returns of persons engaged in the "fishing industries." The engineer, however, holds a place apart from the ordinary crew of a fishing boat. He is paid a fixed wage, but the earnings of the other "hands" are, from "skipper" downwards, commonly dependent, in steamers and sailing boats alike, either wholly or partially on results. In this respect the fishing trade is remarkable for a wide application of the principle of "co-operation." Not only is it the custom for the crew of a fishing boat to be paid, in part at any rate, by a fixed percentage on the proceeds of each voyage, but it is not at all an unusual practice to debit them with a certain proportion of the working expenses, such as for coal, ice, &c. It is probably owing, in a large measure, to a desire not to disturb prevailing custom with respect to the proportions payable to each member of the crew that the growth in the size of vessels has not generally been followed by an increase in the number of hands. The practice of paying by results appears to have had its origin in the fact that the skipper

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

a fishing vessel has usually been its "owner," who, having invested all his earnings in this way—and having too often had to supplement them by a loan raised on mortgage of his boat—has not always been in a position to pay regular wages to his crew, and has had to invite their help by an offer of a share in the proceeds of each voyage. For a man in this position, however, a single bad season frequently spelt ruin, while the tendency to increase the size of vessels placed a further obstacle in the way of this class of boat-owners. Companies have recently been formed for the purpose of building and working fishing vessels, but the innate conservatism of the fishermen has had to be conciliated by adherence to the old methods of payment, and in this way a practice, which in its origin was objectionable, appears likely to develop into a principle worthy of still wider application. It would pass the limits assigned to this paper, if it did not exceed its proper scope, to enter into a consideration of the questions affecting the relations between the "producer" and the consumer of fish; but the remark may be permitted that, while there are obvious difficulties in the way, it would be a great advantage to the interests of those who are employed in the fisheries of the country if means could be devised for extending the principles of co-operation by bringing the fishermen nearer, so to speak, to his ultimate customers. In no other industry is so little preparation necessary before the "raw product" is ready for the retail market, and yet rarely is there such a complete absence of direct dealing between producer and buyer.

SEAL AND WHALE FISHERIES.

NOTHING has been said in the foregoing pages of what may be called the artificial products of the fisheries, such as fish oils, fish guano, &c. As already mentioned, the official returns relate only to the take of fish for purposes of food, and on this account they do not include a reference either to such products or to those of the seal and whale fisheries. But the value of the whale oil and whalebone, and of the seal oil and seal skins, used in this country is very considerable, and it is mainly the product of British enterprise, capital, and labour. The immediate interest which this country has in these fisheries may, in the absence of figures representing their value, be gauged from the fact that, nearly twenty years before any international arrangements were entered into with respect to the North Sea fisheries, provision had been made for establishing, by agreement with other nations interested in the trade, a close time for seals in the seas off the coast of Greenland, and for enforcing penalties against persons destroying seals within the prohibited period.

THE FISHING INDUSTRIES OF THE UNITED KINGDOM.

FISH OILS AND GUANO.

THE extraction of fish oils and the preparation of fish guano are not carried on in this country to so great an extent as elsewhere, but the value of these products must be appreciable. There is, however, room for a development of both these industries in the utilisation of "waste" fish, and of varieties which are of little or no value for food purposes. The use of the word "manure" in connection with fish is commonly associated with the idea of simply throwing on the land fish in a raw state which, owing to a "glut" in the market or for other reasons, is unsaleable in the ordinary way; but a well-conducted fish guano manufactory is suggestive of thrift rather than of waste, and the example which has been set in this respect in America might with advantage be followed and improved upon in this country.

CONCLUSION.

To refer to minor products of the seas, the collection of which might fairly be placed under the head of "fishing industries," might perhaps be held to detract from, rather than to add to, the importance of the subject. The official statistics published in France relating to the fisheries of that country contain an item of £200,000 a year as the value of seaweed annually collected for use as manure and for other purposes. It is, however, unnecessary to go beyond the figures already quoted as representing the value of the produce of the fisheries for food-fish, pure and simple, carried on from our shores, in order to show how great is the importance of these industries, and how deserving they are of consideration. It is satisfactory to be able to add, in this connection, that never, in the long history of legislative and other efforts to protect and develop the fishing industries, have they been the object of more general and careful study than is being devoted to their interests at the present time.

CAN THE EMPIRE FEED ITS PEOPLE?

BY JAMES LONG.

AUTHOR OF "BRITISH DAIRY FARMING," "THE DAIRY FARM." LATE

PROFESSOR OF DAIRY FARMING AT THE ROYAL

AGRICULTURAL COLLEGE.

POLITICALLY speaking, there is perhaps no subject which has greater fascination for the patriotic Englishman than the unity of the English-speaking race—in a word, than federation between Great Britain and her colonies and dependencies. Such an union is devoutly to be desired, for its consummation would not only ensure security such as no European country at least has ever enjoyed, but, under certain conditions, that prosperity which is as necessary to the success of peoples as of individuals. It is not, however, our purpose to deal with the political aspect of the growing movement in favour of the federation of the empire. Our purpose is partly to show in detail, subject to the present limits of knowledge of our great colonies, what the food-producing capacity of the countries composing Greater Britain is like, and what prospect we have of being supplied chiefly by them. If the question at the head of these remarks were put simultaneously to thinking and to non-thinking people, the probability is that contradictory replies would be received. We shall presently see that our colonies are as yet unequal to the production of the food requirements of the people of the United Kingdom in spite of their enormous area; but when we come to consider what the capabilities of each colony are, we shall find that if from any cause our supplies were in danger of withdrawal—whether by the institution of fiscal conditions, alike beneficial to all parts of the empire, it became necessary for us to look to Canada, to Australia, or to New Zealand for our bread—the present wheat area of these colonies would be so rapidly and so enormously increased that we should in a very few years cease to be dependent upon foreign nations. The objections to federation on the part of the colonies are varied, but it may be taken for granted that there is but one serious difficulty before which all others diminish, and that is the difficulty of arranging a fiscal policy which, while naturally reducing the freedom which each colony now enjoys in fixing its own tariff, will maintain the income which that tariff ensures, and which at the same time will leave the necessary food of the British people untouched by taxation. That, in so huge an arrangement as a

CAN THE EMPIRE FEED ITS PEOPLE?

commercial union between Great Britain and her colonies would involve, freedom of action would be curtailed on all sides there cannot be any doubt, but that a mere sentiment should stand in the way of the union of a great people seems utterly impossible. That so great a colonising people should be content to found colony after colony, settlement after settlement, as we are still doing, and to rear each into great states by the expenditure of the money and the protecting care of our people, and then to allow each to cut itself adrift without an effort to bind the offspring to the parent in a union of common interests, is contrary alike to the dictates of our reason and our brotherhood. Nor should the colonists of British blood permit themselves to be led astray by others of alien race into the belief that separation means greater independence and prosperity. The whole world is concerned in a struggle for increased trade. Great Britain is the greatest trading community in the world—it is half as large again as that of Germany, which comes next in order—and it is worth every effort, every sacrifice which sentiment involves to secure that trade, for it is at the disposal of the colonies as far as they can supply our wants, as soon as that family arrangement has been made to which we have referred. Our total imports are as follows:—

TOTAL IMPORTS, 1891.

From Foreign Countries.....	£335,645,256
From British Possessions	99,223,939
Parcel Post	572,069

Total imports..... £435,441,264

Nor are our exports much less important:—

TOTAL EXPORTS, 1891.

To Foreign Countries	£215,256,192
To British Possessions	92,762,063
Parcel Post	1,095,463

Total exports..... £309,113,718

TOTAL TRADE.

Imports and exports £744,554,982

The above figures will show at a glance that whereas our trade with foreign countries amounts to £550,000,000, it only amounts to £192,000,000 with our colonies and dependencies. Why should not the foreign boot be on the colonial leg? It has been pointed out

CAN THE EMPIRE FEED ITS PEOPLE?

by an able and high authority that foreign countries are not likely to diminish their purchases inasmuch as they now buy as little as possible, each fighting for its own hand. To secure such a trade, then, it is worth while to try and see whether time can give effect to it, assuming that the people are willing. Great Britain is willing to buy her food and her other requirements of her colonies, with few exceptions, without the imposition of a duty. Dutiable goods, such as tobacco, could be accepted by arrangement in exchange for British goods upon which a duty is levied in the colonies. Such an exchange suggests free trade between Great Britain and her colonies to the exclusion of the rest of the world, and when the colonies can supply all the necessities of life which we require the most ardent free trader can scarcely object. We cannot find fault with the colonies for imposing duties upon imported goods. These duties are as stimulating to the colonists as a duty on corn would be to the British farmer, an individual who is being gradually sacrificed to expediency—he is in a minority and he suffers for the sake of the majority—although it is lamentable that the most ancient of all industries should be permitted to fail under any conditions.

The imports from the British possessions into the United Kingdom as compared with the total imports into the United Kingdom were as follows:—

1871	22·03 %
1880	22·50 %
1885	22·75 %
1890	23·77 %

But this rate of increase is not fast enough. On the other hand, the exports to the United Kingdom as compared with the total exports from the British possessions have gradually decreased in proportion, thus:—

1871	50·45 %
1875	49·47 %
1880	46·46 %
1885	42·84 %
1890	41·26 %

Chief among our great items of import is wheat, the vast bulk of which comes from foreign countries. For example, the value of the wheat imported in 1891 was £21,448,204, and of corn £62,022,409, the greatest supplying foreign countries being the United States and Russia. The table following will show the quantities sent us in three recent years, but we may observe that enormous as these quantities are, they were greatly exceeded in 1891, when 89,539,355 cwt. were imported, as against 82,381,591 cwt. in 1890.

CAN THE EMPIRE FEED ITS PEOPLE?

IMPORTS OF WHEAT AND FLOUR INTO THE UNITED KINGDOM IN 1888, 1889,
AND 1890. "000" OMITTED.

Countries.	Bushels.		
	1888.	1889.	1890.
United States.....	56,638	59,872	62,413
Russia	40,583	40,440	36,687
India	15,243	17,207	17,008
Germany.....	8,700	7,968	4,309
Austria-Hungary	4,778	6,020	3,452
Australasia	4,441	2,717	5,994
Canada	3,865	5,456	4,458
Chili	2,773	1,069	.....
Roumania	2,646	5,301	8,710
Egypt	1,375	608	794
Bulgaria	547	1,184	655
Denmark.....	448	316	157
Turkey	300	1,247	1,686
France.....	268	489	258
Argentine	816	.....	5,315
Other Countries	3,732	477	729
Total in full figures	146,345,572	150,378,684	152,633,942

The United States increased its export of wheat and wheat flour estimated as wheat from 33,750,000 cwt. in 1890 to 43,000,000 cwt. in 1891, whereas India made an increase of nearly 50 per cent upon that year, the other large supplying countries, Canada excepted showing a large falling off. The capacity of the United States as compared with other countries is at the present moment very great but she owes it to the fact that she possesses a large agricultural population well spread over her vast area. Were Canada similarly fortunate, there would not be any question as to the supremacy in the wheat trade. A writer in the *North American Review* not long since remarked:—

It is a startling fact, not yet fully realised by the people of this country, that at the present rate of procedure the United States may be a large importer of breadstuffs. The growth of the population is so rapid, the exhaustion of the arable land is so constant, that without new and cultivatable territory the sources of the supply of food products will soon be below the local demand.

The writer then shows what we shall fully explain later on—that the best wheat-growing region of the world is just north of Minnesota and that in the new provinces of the Canadian North-West there is a possible wheat supply for all time. He further adds his conviction that no other country can produce dairy goods, oats, hay, potatoes, apples, poultry, and the finest fish equal to Nova Scotia, New

CAN THE EMPIRE FEED ITS PEOPLE?

Brunswick, and Prince Edward Island. Mr. Parkin, the able advocate of the federation movement, says, in his new and temperately written volume, that in Canada is included the largest and richest undeveloped wheat area in the world, and that the great American wheat area, first chiefly confined to Ohio, Illinois, and Iowa, shifted to Wisconsin, Minnesota and Dakota—just as we believe it will later on shift over the border. In 1887 the surplus wheat of the district opened up by the new railway in Canada amounted to 12,000,000 bushels; this was increased to 16,000,000 bushels in 1890, and in 1891 to some 21,000,000 bushels. The Canadian exports into England in the last-named year were 4,500,000 cwt., as against 2,500,000 cwt. in 1890.

The following table shows the comparative

CROPS OF THE PRINCIPAL WHEAT-GROWING COUNTRIES (1891).

	Bushels.
United States.....	611,780,000
Russia	169,108,708
Austria-Hungary	167,412,500
India	255,434,667
Argentine Republic	33,069,000
Australasia	33,874,606

In 1891, whereas the five last-named countries suffered a diminution in their crops equal to 75,000,000 bushels as compared with 1890, the United States had an increase of 212,000,000 bushels, to which abundance many of the ills of British agriculture are due.

In the past year the following proportionate quantities of wheat and flour have been imported from the different countries named:—Russia, 16·0; Germany, 1·5; British North America, 5·0; United States, 48·00; India, 14·5; Australasia, 2·5; other countries, 12·5. Here we notice that in 1891 the Canadian imports formed 5·0 per cent of the total imports of wheat, whereas the Australian consignments were only 2·5 per cent. The figures are based upon the official returns published in this country, others of American origin included in official returns being unreliable. Here, then, is situated the problem as regards wheat. The Australian colonies, Canada, and India between them send us 22 per cent of our total supply; but in 1890 their proportion was only 18 per cent. How can they increase it? Mr. Parkin says that upon the basis of the imports, 100,000 farmers would be necessary to grow all the surplus. Let us assume that an average farmer in the North-West grows 100 acres of wheat, and that he obtains an average of 16 bushels per acre—a low average for the soil of Manitoba, and even for Ontario. Upon this basis 100,000 farmers would produce 160,000,000 bushels, or 20,000,000 quarters, which would in a bad year, like that which has

CAN THE EMPIRE FEED ITS PEOPLE?

just passed, be at least from 2,000,000 to 3,000,000 quarters short of our requirements. Who can, however, dispute the fact that there is room not for one hundred thousand, but for hundreds of thousands of farmers in Canada and our other great colonies? The Governments in each case are making strenuous efforts to induce emigrants to settle on lands practically given to them free; but what does the home Government do in furtherance of a scheme which, when consummated, will prove the finest achievement of the human race?

A year ago an able scientific American wrote a paper upon the future of wheat production in the States, and he expressed the conviction that in some five years Americans would require all they produced for their own consumption. Surplus land is, it is true, now becoming exhausted, and the soil of the older wheat land is becoming exhausted too; but we may expect that just as population increases in such a ratio that the home-grown corn will be required, so will the farmers of the New World adopt the practices of the farmers of the Old World, and commence to develop their resources by farming of a higher class. When they do this—and do it they must sooner or later—the question will arise whether, considering the extra cost of such a system of cultivation, they will continue to export wheat at the price they obtain at the present time. We think they will not; therefore, believing that the decline of wheat exportation from the States is not far distant, we look for a simultaneous rise, although it may be a slow one, in the exports from Canada.

PRODUCTION AND AREA UNDER WHEAT IN THE UNITED STATES, 1880-91.
"000" OMITTED.

YEAR.	Production.	Area.
	Bushels.	Acres.
1880	498,549	37,986
1881	383,280	37,709
1882	504,185	37,067
1883	421,086	36,455
1884	512,765	39,475
1885	357,112	34,189
1886	457,218	36,806
1887	456,329	37,641
1888	415,868	37,336
1889	490,560	38,123
1890	399,262	36,087
1891	611,780	39,916
Total.....	5,507,995,588	448,795,670

CAN THE EMPIRE FEED ITS PEOPLE?

Although the average yield per acre between 1880 and 1889 was only 12·1 bushels per acre, the yield for 1891 was 15·3 bushels per acre, a yield which may not occur again for years.

Sir John Macdonald said that—

As soon as we have proved what our North-West can do, and the English people see that they can get all the wheat they want from ourselves and the other colonies, the English point of view will change, and trade advantage can be made to supplement the other forces which make for British unity.

He also told Mr. Parkin that when we could see that our colonies could feed us, federation might be expected to be worked on a trade basis; but while we are waiting for this good time, great risks are likely to be run in the maintenance of our present positions with each other—in a word, in the prevention of a dissolution of partnership. What value would the Mc.Kinley tariff be to America if free trade existed between Great Britain and her developed and federated colonies? When America offers free trade to Canada, she recognises the importance of the identical question we have in view; but at the same time, by requiring in return discriminating duties against us, she introduces what might, and probably would, lead to a disruption of the bonds that now unite Canada with us. It has often been pointed out that trade follows the flag, but Mr. Parkin points out that it also follows all along the line—of taste, customs, and habits of life in the emigrant. Thus, India excepted, he shows that our colonists consume more British goods, man for man *per capita*, than foreigners. This consumption in Germany is about 8s., in the United States 8s., France 9s., the West Indies 45s., Canada 35s., South Africa 60s., and Australia £8; so that Australia, with its few millions of people, takes more than the United States with its 60,000,000, or Germany with its 50,000,000. The American people are great manufacturers as well as agriculturists, and they have the advantage of the assistance of millions of negroes, whose cheap labour gives them an enormous advantage in their tropical States; but in Australia this is impossible, as the people will never permit the unlimited introduction of the cheap labour element. We cannot affirm that labour is dear in Great Britain, but there can be little doubt that the keen competition among nations hits the British workman hard, and assists in filling our poorhouses and refuges. Yet all this while we are dependent for our very bread upon other people. Insulated as we are, with a maximum number of people and a minimum quantity of land, it is to our interest to fix the sources of our food supply among our kith and kin. Blockade the ports of almost any other nation, but the people would still obtain food; yet, as Mr. Parkin puts it, blockade the ports of the United Kingdom for six weeks and a want would be felt, whereas in six months starvation would be the prevalent condition of the people. Without, however,

CAN THE EMPIRE FEED ITS PEOPLE?

dwelling upon the possible state of affairs, we may contemplate the probable condition of our people in case of a serious war. We spend annually with producers outside our shores no less than £150,000,000 in food, and yet this food is cheap—so cheap that it is within the reach of all. What, however, would be its cost under war conditions when but for our colonies we might receive no imports of wheat at all? The position would be so serious that it is probable hundreds of thousands of our people would not receive the necessaries of life.

Let us now ascertain the wheat-producing capacity and the consumption of the countries comprising Greater Britain, taking an average year.

WHEAT CROP AND WHEAT CONSUMPTION OF GREAT BRITAIN AND THE CHIEF COLONIES. "000" OMITTED.

Country.	Bushels Grown.	Bushels Consumed.
Great Britain	60,000	228,000
Canada	50,000	31,000
India.....	245,000	Unknown.
The Cape	4,000	"
Australasia	34,000	25,145
	393,000	

Sir Julius Vogel points out that whereas the Customs duties collected by the colonies amounted in 1890 to £21,600,000, or about 9 per cent upon the imports, the British Customs amounted to £19,400,000, or 4·48 per cent on the imports. Inasmuch, however, as the British duties are levied upon £30,000,000 of the importations only, these imports were taxed to the extent of 64 per cent. These facts point to the difficulties in the way of any kind of commercial union, for, assuming such an union were accomplished, we in Great Britain would lose heavily upon those articles now highly taxed with which our colonies supplied us, whereas the colonies as regards their trade with Great Britain and each other would lose in a similar way. Whether the increased trade between the different members of the family would at first make up the difference is a matter of grave doubt, but there can be no question of the ultimate success which would attend it. Sir Julius Vogel, in the *Contemporary Review*, suggests that a stimulus might be given to the colonies by a bonus on their productions, which he thinks would tend to work out automatically an ultimate system of

CAN THE EMPIRE FEED ITS PEOPLE?

free exchange of goods between the different parts of the empire. He selects twelve commodities to illustrate his proposal, three of which are dutiable in this country, and with reference to which a differential duty, or increase of duty, might be imposed against foreign countries. In the other cases a bonus would be paid to give them an advantage as compared with similar goods from foreign countries to induce the British people to give them the preference. From these commodities we select six.

SIR JULIUS VOGEL'S BONUS SUGGESTIONS (ABBREVIATED TABLE), 1891.

"000" OMITTED.

	Gross Value of Imports from Foreign Countries.	Gross Value of Imports from British Possessions.	Value of same Foreign Imports when pro- portionate value of Re-exports are deducted.	Value of same Imports from British Possessions after deducting proportion- ate value of Re-exports.	Bonus Percentage.	Amount of Bonus on Imports from British Possessions after deducting such Imports as are not retained for use.	Increasing to but not exceeding.
	£	£	£	£		£	£
Grain and Flour ..	50,098	9,494	49,727	9,424	10	942	1,500
Butter	11,129	461	10,786	447	10	44	200
Cheese	2,747	2,065	2,637	1,982	10	198	200
Meat (including bacon, &c.)	16,060	3,005	15,440	2,872	10	287	500
Sugar	18,900	1,585	18,473	1,549	10	154	500
Tobacco (dutiable)..	2,093	46	1,879	41	10	4	200
Total of 12 com- modities includ- ing wool, cotton, timber, fish, tea, and wine.....	10,461	8,393	9,310	7,178	..	717	1,300

It is suggested that the rate of bonus named in the table should be for the commencement, a reduction being made upon the increase of the imports beyond the maximum, the bonus being *ad valorem*. It is unnecessary to refer to the proposal respecting transshipments, but with regard to the payment of a bonus upon colonial articles which are similar to those produced in the United Kingdom, it is necessary to say that Sir Julius Vogel proposes to pay an equivalent amount (not percentage) to that paid to the colonial producers for distribution among the home producer. Thus, the British farmer would obtain State assistance in the production of grain, meat, cheese, butter, and wool. As it is manifestly impossible to tax food, even though it be produced by foreign countries, the only possible way out of the difficulty appears to be the alternative

CAN THE EMPIRE FEED ITS PEOPLE?

suggested by means of which our colonists and our own people would be placed at an advantage as against the foreigner. The proposal is of course not new as applied to Great Britain. It has been suggested over and over again that the British farmer should receive a bonus to enable him to grow wheat; but while statesmen contend as they do for office and power, the farmer is not likely to obtain even a hearing upon such a question, whatever the colonist may do, although the same statesmen may be large landowners, deriving their incomes not entirely from the soil, as they suppose, but to a large extent from the pockets of the farmer and the sinew of him and his men. We cannot but think that such bonuses might very properly be paid as Sir Julius Vogel suggests from the proceeds of a tax upon articles of luxury, such as Lord Salisbury not long ago hinted. What would the early free traders think of the efforts of the federationists of to-day? Dr. Cunningham says Cobden expected free trade and commercial intercourse would render nations so dependent upon one another that war would be impossible. That prophecy has not been fulfilled, but international links, of which he failed to take sufficient account, are being forged.

There are thinkers who believe that the United Kingdom could produce food enough to provide for its own requirements, and among them is Dr. Alfred Wallace, the land reformer. Dr. Wallace writes to us: "I believe that even Great Britain and Ireland could produce food enough for its whole present population, and that without much difficulty; but of course, he adds, it cannot do so if the land has also to support farmers and landlords, whose interest it is to get profits, not to produce food." The vast difference between these two things is not generally recognised; land nationalisation upon these lines is Utopian. We have already shown what would be required in Canada to produce the bulk of wheat we import. In Great Britain the yield per acre might probably be placed 50 per cent higher, not more, because it is the cream of the wheat land of the country which is now cultivated, and a large increase in the wheat acreage would mean a fall in the yield per acre. If, then, 10,000,000 acres would be required in the Canadian North-West to produce 20,000,000 quarters of wheat at 16 bushels per acre, 6,600,000 acres would be required in this country at a yield of 24 bushels per acre. As our wheat acreage is (1891) only 2,392,245 acres, and our entire cultivated area only 48,000,000 acres, it is difficult to see where this extra wheat land could come in. Assuming that the whole of our cultivated land were arable, and that wheat were taken once in every rotation on the four-course system, there would be 12,000,000 acres; but there are many millions of acres of permanent pasture entirely unsuitable for wheat in counties which are equally unsuitable. Nor have we any right to assume that the British farmer could materially increase

CAN THE EMPIRE FEED ITS PEOPLE?

his yield per acre unless by higher, but consequently unprofitable, farming. He now reaps a much higher average than the farmer of any other country, for the reason that his acreage is small and good, and at his present maximum, about 31 to 32 bushels per acre, he will probably stop. It is, however, not many years since his maximum was 26 bushels per acre, and, curious as it may appear, it has been during the more recent years of depression (1880-91) that such great strides have been made. In 1879 Sir John Lawes, who has done more than any other man, living or dead, to bring about the above result, said:—

No one, I suppose, can doubt that the soils of this country are capable of producing very much more wheat and meat than they do at present, if not indeed all that is required to support the population. If imports of these articles were prohibited, or a heavy duty imposed upon them, there is no doubt that a much higher system of farming would be profitable than at present prevails. In such a case, however, our dependence upon the produce of foreign soils would not be lessened. The increased production of wheat and meat here supposed could only be attained by increased imports of cattle foods and manures. The countries which now supply us with wheat and meat would supply instead such products as they were permitted to sell to us. Our dependence on the foreigner would, therefore, be equally great; the only difference would be, that it would be for other commodities than at present.

What Sir John says is literally true. We have produced more wheat and meat as he predicted was possible, but at an annual expenditure for foods and manures of an incredible sum. Let us enumerate a few of the items. Oil-seed cake, £1,843,285; oil seed, £609,890; maize, £8,411,763; oats, £5,471,279; other kinds of grain, £2,296,271; bones, £494,271; guano, £138,642; phosphates, £628,395. There are many other items which might be added. It should, however, be mentioned that the value of the oil seed for stock feeding is much smaller than the sum named, the oil being extracted in this country; that a large portion of the maize is used as a food for the people; and that of oats and other grain, probably not more than one-half comes into the category of stock feeding. There are, however, large quantities of by-products—such as grains and rice meal, among foods; sulphate of ammonia, soot, salt, coprolites, and potassic manures, among fertilisers—which are now used upon the farm.

Sir John Lawes some years ago made a calculation with the object of ascertaining how far the acreage yield of the world was more or less than the yield of the unmanured wheat at Rothamsted. He concludes that as he has been growing every year nearly three times as much wheat as his unmanured land yields, there is room for a greater yield in the country. He says, in a letter to us:—

The whole question of production, however, turns upon price. If we were confined to the production of our own island, wheat might be worth 20s. a

CAN THE EMPIRE FEED ITS PEOPLE?

bushel and potatoes a penny each. There is hardly any limit to what we could grow if necessity compelled us to depend upon our own crops; but assuming that we were suddenly thrown upon our own resources, the first year would be difficult to get over, as we should require so much of the existing stores for the increased area to be planted.

When the above was being written, Sir John was cutting his forty-ninth crop of wheat; practically, therefore, he is in his fiftieth year as a grand old agricultural educator—the grandest farmer of us all. We are indebted to him for a copy of the figures comprising the calculation to which we have referred.

	Acres.	Bushels.	Bushels per Acre.
Australia	3,877,748	42,481,131	11
Tasmania			
Ontario	1,545,729	26,924,867	17·6
Manitoba	410,864	7,687,316	18·7
India	19,027,900	205,680,553	10
Austria	2,928,788	50,264,755	17·1
Hungary	7,101,314	122,972,556	17·3
Belgium	690,951	17,013,417	24·6
Denmark	143,573	3,813,603	26·5
France	17,198,452	296,701,782	17·3
Germany	4,783,122	94,699,255	19·8
Holland	206,322	5,964,158	28·9
Italy	10,951,340	108,000,000	10
Norway	11,203	275,924	24·6
Russia	28,882,440	243,126,836	8
United States	37,262,172	434,585,000	11·66
	135,021,918	1,660,191,153	12·29
Rothamsted, mean of 40 years unmanured...			13 $\frac{1}{8}$
The World, „ 134,000,000 acres			12 $\frac{1}{4}$

So far as home production is concerned, we may take it that it is a question of price; and therefore, as prices are not likely to become high in our time, our wheat acreage is not likely to increase materially.

It has often been pointed out that under free trade the consumer does not benefit to the extent he should do, and that with a 5s. duty he would be just as well off if at the time of its imposition an arrangement were made for the regulation of the price of bread. It will be recognised at once that such an arrangement could be made

CAN THE EMPIRE FEED ITS PEOPLE?

irrespective of the imposition of a duty, and with an appreciable effect upon the consumer's pocket. Sir Charles Tupper has pointed out that only when a maximum advance of 10s. a quarter on wheat has been reached is there so much as a halfpenny difference in the 4lb. loaf; but a tax on wheat would not necessarily be borne by the bakers and millers without any advance being made; on the contrary, it would, in the first instance, be made a pretext for an immediate advance, however the regulation of price by the trade subsequently righted the matter. We have elsewhere shown that the price of bread is usually out of all proportion to the price of wheat, and that fact any person who grows and grinds his own wheat can speedily ascertain for himself; and it is for this reason that we think immense good may be accomplished if labouring men are enabled to grow even so little as a single acre of wheat for their own consumption. Again, it may be noted as strange that in Germany—and this is specially noted by Lord Dunraven—the price of wheat fell in 1882 from 10·3s. per cwt. to 9·39s. in 1889, when the duty was 2s. 6d., as against 6d. in the former year. The reason for this unusual result is, that what was lost by foreign imports was made up by the development of wheat growing at home. The inference, of course, is, that if a duty were imposed in the United Kingdom wheat growing would develop, farmers would be induced to put more labour into the soil as well as more manure, and that in course of a few years the price would fall to its former level, if indeed not below it. We are quite prepared to admit that a 5s. duty, or a bonus of a similar sum, would stimulate the wheat-growing farmer, and give him heart to do a great deal, because he recognises the fact that the foreign importer could not compete with him any longer on level terms. A tax on corn, however, is not likely to be entertained by a House of Commons composed as it is to-day. It may come from the labour party, but it should never have effect against British possessions if those who govern them contemplate the establishment of a commercial union with us. The payment of a bonus to the British wheat grower up to a certain point is altogether another matter, and it is a question worth discussion. Assuming that in a few years we reached 10,000,000 quarters, the total cost upon the basis of a 5s. bonus would be only £2,500,000 per annum, a sum which even a Gladstonian Government might be justified in providing by a tax upon articles of luxury. This would mean an increase in the returns of £1 per acre of wheat land growing an average of four quarters per acre—a sum, if not very large, yet large enough to prevent many a man going to the wall, and to enable many another to take a new lease of agricultural life. It would practically check the present perceptible decadence of British agriculture and the exodus of rural life.

CAN THE EMPIRE FEED ITS PEOPLE?

If the time were ripe we should hail with delight the adoption of a well-considered scheme such as that which Sir Julius Vogel has drawn. It can be discussed none too soon by the colonial representatives and our home statesmen. What happened in the American war may happen again. When almost solely dependent on the cotton of America, it, as Mr. Parkin vividly describes, lay wasting in the South while millions of spindles lay idle in England although our ships were ready to carry it. It is true that we could have forced our way into the cotton states and carried it off, but in order that the American flag might be respected our people suffered and for months the industry by which they earned their bread was practically closed. With our colonies, however, nothing of the kind could happen even in case of war, for their flag is ours.

Again, our capital is largely invested in the colonies and dependencies. India, says the author of "Greater Britain," has absorbed £350,000,000 in her enterprises under official or quasi-official guarantee, and further vast sums in private industries. Canada has borrowed £50,000,000 upon public guarantee, and as much more in connection with private undertakings. Australia has borrowed £200,000,000 through public channels, and a further £200,000,000 through private ones. If we add to these large sums the moneys we have advanced to the Cape, the West Indies, and others of our dependencies, we must see that it is to our interest to maintain our trade connection with them—nay, to increase it. If, as has been stated upon authority, we have advanced £1,000,000,000 at low interest, it is because we believe the colonies afford us the best security possible, because they are our trusty children to whom we look in return for cheap productions.

Before leaving this branch of our subject we turn once more to Mr. Parkin, and note his reply to the question we are induced to put. Can there be common interests between the United Kingdom and the colonies so far from our shores?

He says :—

I go to a woollen mill in Yorkshire; I see the bales of wool as they arrive from Australia; I pass through the processes of washing and spinning until I see the finished goods ready for shipment all over the world. I learn that anything which checks the supply of wool for a few weeks leaves the machinery idle, the hands out of employment. I go to New Zealand and visit a remote station. A squatter has 100,000 sheep; I see all his arrangements, his sheds and plant, his shepherds and shearers. He has his difficulties—rabbits, drought, and mortgage. If he finds wool rising in London he is hopeful, for a good year will repay him. Cut him off from his market and he and his men are paralysed. I go on a liner carrying thousands of bales of wool, which on her return journey will be replaced by manufactured goods. This ship and all others like her, with their hands, depend upon the prosperity on both sides of the world, and upon safety on the seas. Here, then, is community of interests and mutual dependence.

CAN THE EMPIRE FEED ITS PEOPLE?

WHEAT.

THE following table shows the relative wheat yield of the various wheat-growing countries of the world :—

	Average Bushels Yield per Acre.		Average Bushels Yield per Acre.
Denmark	31.1	Austria	10.4
United Kingdom	28.0	British Columbia	15.0
Norway	25.1	Ontario	14.1
Belgium	21.5	Hungary	13.6
Holland	21.5	Italy	12.1
Manitoba	20.3	United States.....	11.7
Germany.....	18.8	Russia in Europe	4.6
France.....	16.9	Australasia	14.2

We have placed the average British crop at 28 bushels per acre per annum, although the yield is undoubtedly higher in good years, *i.e.*, in years in which the weather is not abnormally bad. It will be noticed that the small countries, where farming is "intensive," produce the best results, in spite of much inferior land, and that in other and larger countries, in some portions of which agriculture is still backward and undeveloped, the yield is low.

The next table gives the average consumption per head of the population. Strangely enough, where wheat is high in price—in France—the consumption is the greatest, much greater than in the colonies, where it is cheaper. The small consumption of Germany, Austria, Russia, and the Scandinavian countries is owing to the very large consumption of rye—rye bread being the staple food of the people in many of the largest districts in each country. The large consumption in the colonies is probably owing to the fact that wheat is cheap.

CONSUMPTION OF WHEAT BY DIFFERENT COUNTRIES.

	Per Head (bushels).		Per Head (bushels).
France.....	8.1	Austria	2.9
Canada	6.6	Russia	2.1
Australasia	6.6	Scandinavia	1.4
Spain and Portugal	6.4		
Turkey	6.1	New Zealand	7.56
United Kingdom	6.0	Tasmania	6.70
Italy	5.4	New South Wales	6.50
United States	5.4	South Australia	6.50
Belgium and Holland ...	5.0	Victoria.....	6.28
Germany	3.0	Queensland	6.09

CAN THE EMPIRE FEED ITS PEOPLE?

BARLEY AND OATS.

NEXT to wheat, the barley crop may be taken as the most important grain crop to the British consumer, not because of the acreage as compared with oats, but because it is much higher in price. For example the following figures may be given:—

BARLEY, 1891.

United Kingdom	2,298,978 acres.
Estimated crop	79,555,089 bushels.
Imports	34,931,396 „
Average yield per acre	34.72 „
Average gazette price	28s. 2d. per quarter.

OATS, 1891.

United Kingdom	4,128,127 acres.
Estimated crop	166,472,428 bushels.
Imports	46,481,103 „
Average yield per acre	40.46 „
Average gazette price	20s. per quarter.

The above figures show at once the immense importance of the two cereals to the British consumer. We import nearly half as much barley as we grow, and not very far short of one-third as much oats. Our imported barley comes chiefly from Russia, Turkey, and Roumania, and our imported oats from Russia and Sweden; but for Russia the price would be much higher than it is in each case. The next table shows the comparative crops of barley grown by the United Kingdom and the chief colonies and dependencies.

BARLEY CROP OF GREAT BRITAIN AND THE COLONIES, 1891.

	Bushels grown.
Great Britain and Ireland	79,555,000
Canada	25,000,000
Victoria	1,571,000
South Australia	(15,697 acres).
Queensland	almost <i>nil</i> .
New South Wales	(4,937 acres).
New Zealand	(32,740 acres).
Tasmania	99,842
The Cape	1,076,000
India .....	.....
Australasia, 1889 (estimated)	3,759,000

CAN THE EMPIRE FEED ITS PEOPLE?

Great Britain is the greatest barley-growing country next to Russia and Germany, but she is closely pressed by Austria, Spain, and Algeria. In addition to the crop grown, Great Britain imported 17,465,000 cwt. in 1891, the average price of which was 6·8s. per cwt.

OAT CROP OF GREAT BRITAIN AND THE COLONIES, 1891.

	Bushels grown.
United Kingdom	166,472,428
Ontario	75,009,542
Manitoba	14,762,605
Quebec, 1880.....	19,990,205
Prince Edward Island, 1885	1,046,000
British Columbia, 1881	253,111
North-West Provinces	no data obtainable.
Newfoundland, 1884	(5,390 acres).
Nova Scotia, 1881	1,873,113
New Brunswick, 1881.....	3,297,534
Victoria	1,571,599
New South Wales	256,659
South Australia	93,850
Queensland	very small.
Western Australia	37,713
Tasmania	519,395
New Zealand	9,947,036
The Cape	1,761,858
Natal	25,000

The production of oats, as of wheat, is the highest in the smaller countries, in which we may even include Norway, for, in spite of her large area, her corn area is small.

PRODUCTION OF OATS IN VARIOUS COUNTRIES.

	Average bushels per acre.		Average bushels per acre.
Holland	42·1	Germany	21·9
Belgium	41·8	Austria	20·9
Norway	39·7	Hungary	20·2
United Kingdom	37·7	Italy	19·3
Denmark	32·3	Russia.....	12·3
France	26·0	The Cape	8·1
United States.....	26·0	New South Wales.....	20·5

CAN THE EMPIRE FEED ITS PEOPLE?

MAIZE.

THE only remaining grain crop which claims our particular attention is maize, of which in 1889 we imported 26,825,000 cwt., only 1,152,400 cwt. of which came from British possessions, Canada supplying the bulk. Our three great maize-supplying countries are Roumania, the United States, and Russia, smaller quantities coming from the Argentine Republic and Egypt. Our Australian colonies Natal, and the Cape made small exports showing that they have the climate, and as will be seen further on there is no reason to doubt that under given conditions and with time they could supply us with all we require. It will be as well to show that the quantity given above does not represent our average imports of maize, and that even Canada has sent us a great deal more. For instance, the imports during the past five years have been as follows:—

	MAIZE IMPORTED.	Cwt.
1887		31,167,325
1888		25,370,164
1889		36,192,325
1890		43,437,834
1891		26,825,625

An average of over 32,000,000 cwt. per annum, of which in one year (1889) Canada sent no less than 2,866,598 cwt. Let us next see what the great colonies can do in the way of maize production.

PRODUCTION OF MAIZE IN BRITISH POSSESSIONS, 1891.

	Bushels.
The Cape	2,818,495
Natal (about)	2,400,000
Ontario, 1890	14,011,000
New South Wales	5,713,205
Victoria	574,083
Queensland, 1890.....	2,373,803

In spite of the fact that no inconsiderable crops are grown in the above countries under our flag, the total crops do not amount to half as much as our consumption.

MEAT.

IT will next be convenient to ascertain the requirements of the United Kingdom in meat of the various kinds imported, including that which is salted. In a previous year we made numerous calculations with the object of ascertaining as nearly as possible the quantity of meat consumed in these islands, and we arrived at the following figures, which will answer our present purpose:—

CAN THE EMPIRE FEED ITS PEOPLE?

MEAT PRODUCE OF GREAT BRITAIN, 1890. "000" OMITTED.

	Animals.	Slaughtered.	Weight.	
			tons.	lbs.
Cattle	6,508	1,952	522	1,171,446
Sheep	27,272	10,908	340	763,488
Pigs	2,773	3,235	161	362,418
	36,554	16,097	1,025	2,297,352

To the above was added data derived from the average of the Irish returns for two previous years, the figures for the year not then being available to afford the basis of a calculation, so that we obtained the following total ("000" omitted):—

	British.	Irish.	Per Head of the Population.
	lbs.	lbs.	lbs.
Beef	1,171,446	737,934	50·24
Mutton	763,488	106,400	22·89
Pork	362,418	180,216	14·27
Total pounds of home-grown meat consumed	2,297,352	1,024,550	87·40

To the above the imported meat was added, so that after making allowance for that which was exported, we arrive at the following important data:—

TOTAL AVAILABLE MEAT SUPPLY FOR THE YEAR ENDED SEPT. 30, 1890.
"000" OMITTED.

	United Kingdom.	Imported.	Per Head Imported.	Per Head Total Supply.
	lbs.	lbs.	lbs.	lbs.
Beef	1,909,380	588,656	15·4	*65·7
Mutton	869,888	206,158	5·4	28·3
Pigmeat	542,634	545,977	14·3	28·6
Meats unenumerated	.....	85,713	2·2	2·2
	3,321,902	1,426,504	37·3	124·8

Our consumption of meat has enormously increased of late years, and largely owing to the low price of imported meat. Our people are thus better fed than they were, a fact which should not be lost

* A portion of this is produced upon imported store cattle.

CAN THE EMPIRE FEED ITS PEOPLE?

sight of. The people of the United Kingdom, then, consumed over 4,748,000,000lbs. of meat in 1890, valued at considerably more than £100,000,000. It is now important to ascertain what proportion of our imported meat comes from British possessions.

LIVE AND DEAD MEAT IMPORTED, 1891 (VALUE).

	From Foreign Countries.	From British Possessions.
	£	£
Oxen and bulls	6,460,710	1,632,336
Cows.....	165,780	170,317
Calves.....	150,240	2,191
Sheep and lambs.....	601,678	61,337
Swine	1,809	.....
Bacon	6,366,201	284,123
Hams	2,595,128	196,309
Beef—salted	338,905	17,117
„ fresh.....	3,793,319	245,176
Meat—various.....	247,025	8,873
„ preserved.....	1,170,376	123,714
Mutton—unenumerated	32,276	104,658
Meat—other sorts	363,288	93,749
Mutton	1,157,548	2,124,453
Pork—salted.....	292,487	3,445
„ fresh	302,567	158
	24,039,337	5,067,956

The totals show that in the year in question the meat received from the colonies was something more than one-sixth of the entire imports. Now, the question arises whether the colonies possess the stock from which to supply our needs. We have seen the quantity of meat of each kind produced in the United Kingdom, and we will now show the number of live animals from which we are able to draw our supplies.

NUMBER OF LIVE STOCK IN THE UNITED KINGDOM IN 1891.

Cattle	11,343,686
Sheep	33,533,988
Pigs	4,272,764
	<hr/> 49,150,438

What do the colonies possess? We shall find that, as far as sheep are concerned, they have the means of providing all our requirements.

CAN THE EMPIRE FEED ITS PEOPLE?

NUMBER OF LIVE STOCK IN THE PRINCIPAL COLONIES. "000" OMITTED.

	Cattle.	Sheep.	Pigs.
Nova Scotia, 1891	325	377	47
New Brunswick, 1891	212	221	53
Quebec ,,	1,030	889	329
Ontario ,,	1,702	1,359	700
The North-West Provinces, 1891	231	65	16
Other Canadian Provinces, 1891	500	...	...
New South Wales, 1890	1,909	55,986	283
Victoria ,,	1,782	12,692	282
Queensland ,,	5,558	18,007	96
South Australia ,,	574	7,050	118
West Australia, 1891	134	2,563	32
Tasmania, ,,	162	1,619	81
New Zealand ,,	831	18,117	222
	14,950	118,945	2,259

Here, then, we have the startling fact that, exclusive of the cattle, sheep, and pigs of every colony or dependency omitted in the above table, Canada and Australia alone possess a far larger number of cattle, and more than three-and-a-half times the number of sheep, although a smaller number of pigs. If, therefore, with 11,343,000 head of cattle (plus the store cattle we import) we can provide ourselves with 1,909,380,000lbs. of beef, surely our greatest colonies, with nearly 15,000,000 cattle, can supply the balance (588,656,000lbs. in 1890) and the store cattle as well. Similarly, if with 33,500,000 sheep we can provide 869,888,000lbs. of mutton for our own consumption, we may take it for granted that the Australasian colonies alone, with their 115,000,000 head, can supply ten times the balance we require; indeed, if it were necessary, the British farmer himself could provide all our mutton, and our colonies could supply Europe itself. The same remark, however, does not apply to beef, for we must not forget that a large proportion of our home-fed beef is of foreign origin. A far larger quantity of beef could be produced in this country, but prices forbid any extensive increase. With regard to pigs, serious argument is not necessary to show that we could produce all we require, conditionally on the more extensive growth or importation of corn. Pigmeat, however, fluctuates far too seriously in price to induce breeders and feeders to extend their trade in this direction.

CAN THE EMPIRE FEED ITS PEOPLE?

DAIRY PRODUCE.

THE last great branch of food produce which is grown alike in the colonies and the United Kingdom is that connected with the dairy. It was estimated a few years ago that our own production of butter was 95,933 tons, and of cheese 135,500 tons, valued at £10,744,296 and £6,955,666 respectively. We have ourselves estimated the consumption per head in these islands to be as follows:—

CONSUMPTION OF BUTTER PER HEAD, 1891.

	Per Head.	Value.
Consumption of imported butter.....	9·4lbs.	7s. 4d.
Consumption of home-made butter.....	5·6lbs.	5s. 6d.
	<hr/> 15·0lbs.	<hr/> 12s. 10d.

If we were to add margarine, the total would be enormously increased. With regard to cheese, we have estimated the consumption as follows:—

CONSUMPTION OF CHEESE PER HEAD, 1891.

	Per Head.	Value.
Imported cheese	5·7lbs.	2s. 4½d.
Home-made cheese.....	7·9lbs.	3s. 7½d.
	<hr/> 13·6lbs.	<hr/> 6s. 0d.

The probability is that although the *per capita* consumption of butter is as above, the gross consumption has largely increased; we therefore put it at 5,131,875 cwt., allowing for an increase in the population of 500,000 up to September, 1892, since the previous estimate was made. Similarly we place the present consumption of cheese at 4,652,900 cwt. Now let us see what proportions of the butter and cheese (British margarine we are constrained to omit, for at the present time it is next to impossible to obtain reliable data about it) we consume are contributed by the colonies. At a shilling a pound, the value of the home-produced butter, and at 5½d. a pound, the value of home-made cheese, it would be as follows:—

VALUE OF BUTTER CONSUMED IN THE UNITED KINGDOM.

Home-produced butter	£10,729,040
Foreign-produced butter.....	11,129,462
From British possessions	461,721
	<hr/> £22,320,223
Foreign-produced margarine, including £169	
from British possessions	3,558,203
	<hr/> £25,878,426

CAN THE EMPIRE FEED ITS PEOPLE?

VALUE OF CHEESE PRODUCED IN THE UNITED KINGDOM.

Home-produced cheese.....	£6,937,154
Foreign-produced cheese	2,747,516
From British possessions	2,065,888
	<hr/>
	£11,750,558

We consume, therefore, butter and cheese to the value of £36,500,000 per annum, but of this £13,750,000 goes to foreign countries, chiefly Denmark, France, Sweden, Holland, and the United States, the colonies taking but little more than £2,500,000. We do not pretend to say that the production of either butter or cheese will materially increase in Great Britain in spite of the great impetus given to the dairy movement by technical instruction, for we think it will not affect butter unless in comparatively few instances which will not bear unlimited multiplication, as butter is a product which pays far less to the average farmer than the sale of milk or even the manufacture of cheese of high quality. Competition, too, is so keen that a butter maker must be prepared to work for a mere living profit. It must be remembered that our chief competitors, the Danes and the Swedes, are able to live on smaller sums than our own countrymen, who have never even seen the black bread which is the staple food of both. The adulteration of butter, too, is so serious that the trade is in danger of utter demoralisation, and on this ground alone the farmer is quite justified in stating that until he is protected he prefers to adopt some more profitable branch of agriculture. Let us now endeavour to ascertain what the colonies are doing in the manufacture of dairy goods.

PRODUCTION OF BUTTER IN THE CHIEF BRITISH POSSESSIONS, 1890.

	Pounds made.	Price, cents.
Ontario (in 32 creameries).....	1,147,555	19 $\frac{1}{4}$
Quebec	no returns	...
New South Wales	18,534,130	...
Queensland	no export trade	...
South Australia	3,028,460	...
Victoria	34,974,880	8d.
New Zealand	16,310,012	...

These figures are sufficient to show that with very small populations an immense work is done, and that development which an increase in the agricultural and pastoral population alone can give will immensely increase the production and consequently the exports. The present efforts in the direction of exports show that the colonists can compete in our markets with advantage to themselves.

CAN THE EMPIRE FEED ITS PEOPLE?

PRODUCTION OF CHEESE IN THE CHIEF BRITISH POSSESSIONS, 1890.

	Pounds made.	Price.
Ontario (in 817 factories)	79,364,713	...
Quebec (670 factories).....	no returns	...
New South Wales	4,796,567	...
Queensland	no export trade	...
South Australia	840,721	...
Victoria	17,287,400	6d.
New Zealand	6,975,698	...

Although the actual production shown above is not sufficient to provide for our total imports, yet again we would point out that for Ontario, Victoria, and New Zealand to produce so largely with such a scanty population speaks volumes for their future in this direction. Clearly the home market will be in danger as the population of the colonies increases, and it will be for the European and American producers who now supply Great Britain so largely to prepare for a contest for the possession of our markets—a contest which, as far as British farmers are concerned, will be hopeless under the conditions upon which they now farm. We have, then, no hesitation in saying that the evidence points with overwhelming force to the fact that, as far as dairy produce is concerned, there need be no doubt about the capacity of the empire to provide all it requires, and that right speedily were time of importance. In no other department of food produce could the work be accomplished so quickly; indeed, with rapid development, there is no reason why the great British people should not become large exporters.

OTHER PRODUCE.

ALTHOUGH our inquiry is intended to deal chiefly with the absolute necessities of life, it is important that reference should be made to other articles which, if not actual, are practical necessities, such as tea, coffee, sugar, tobacco. We need only mention in passing that among other principal articles of export, such as wool, silk, cotton, wine, fish, oil, jute, timber, seeds, tallow, hemp, metals, flax, eggs, fruit, rice, and leather, the greater number are already produced in abundance. Our Australian colonies are the greatest producers of WOOL in the world, and through us they supply the world with a large proportion of the wool it requires. Manufactured SILK chiefly comes to us from France and Belgium, but raw silk is imported in largest quantity from China; our own dependencies, however—India and Hong Kong—send us very considerable consignments, and even Australasia has appeared in the import list.

We are manufacturers of COTTON goods, and the world has never known such a trade as we command in this commodity, for while

CAN THE EMPIRE FEED ITS PEOPLE?

our imports amount to £49,000,000, our exports reach £71,000,000. Our own dependencies, however, send us cotton to the value of £2,000,000, India taking the bulk of the trade, although we cannot omit to notice that among our contributors are Natal, Australasia, and the West Indies. If, then, such countries as the three first-named, with their enormous natural resources and advantages, can grow cotton with success, even this industry is not outside the pale of our own production.

WINE costs us, net, £4,750,000. Of this sum France, Portugal, Spain, and to a smaller extent Germany and Italy, absorb all but a sum of about the odd quarter of a million; but here, again, the colonies and dependencies are asserting their claim to our trade, for we are receiving rapidly-increasing quantities from Australia, and even Africa. British demand, while continental wines will never be superseded altogether, will ensure a never-failing increased supply from the Cape and Australia at least.

For FISH we go to the United States, to Norway, Holland, France, and even Portugal, but of the £2,750,000 we pay one-fifth goes to Canada, whence we can derive practically all we require.

For OIL we pay nearly £2,250,000, the larger portion of which goes to the United States (turpentine), Norway, Germany, France, and Italy; but here our own colonial trade is immense, Canada, Australia, India, Ceylon, Lagos, the Niger possessions, and the Gold Coast supplying between them oil to the value of £1,500,000.

JUTE, another article of importance, comes to us to the value of £4,250,000; but we are exporters to the value of £2,750,000, our Indian possessions supplying our own requirements and sufficient to export to the above value. India is practically the producer of all the jute we import.

TIMBER is imported to the value of £16,000,000, but the exports being almost unworthy of notice it is apparent that we are dependent upon outside sources—these being principally Russia, Sweden, Norway, and the United States; but, nevertheless, our own colonies send us timber to the value of £3,500,000, and as the forests of Canada alone are unlimited, we may rest satisfied on this point.

For SEEDS, a very elastic term which includes cotton seed and flax seed, we requisition a number of countries, but in every branch we are supplied with a more or less large quantity by one of our colonies or dependencies. Cotton seed, for example, comes chiefly from Egypt, but South Africa and the West Indies supply it. Flax seed comes chiefly from India, but Russia, the United States, and a number of other countries fight hard for the market. France, Germany, and the United States supply the bulk of our grass and clover seeds, but Australia and Canada are well represented. Russia and Roumania send nearly half the rape seed we import, but India

CAN THE EMPIRE FEED ITS PEOPLE?

provides almost all the other half. Of the remaining varieties of importance India is the largest contributor, closely followed by Egypt.

The imports of TALLOW and stearine amount to £1,772,000 in value, but nearly one-half (£842,000) is supplied by the Australian colonies, whose supply will, with the development of the cattle industry, be ample for all our requirements without the growing aid of the Falkland Islands, the Straits Settlements, and Canada.

We buy most of our HEMP from the Philippine Islands, but Germany and Italy send us large quantities. Hong Kong, New Zealand, India, and Mauritius, however, are exporters to the value of one-ninth of the total supply, and can be depended upon to increase their trade.

Of the METALS we export infinitely more iron, copper, lead, and zinc than we import, and almost as much tin; whereas, as regards silver, our own possessions supply us to the value of £2,270,000, against £1,496,000 exported to us by Chili and other foreign countries. Clearly, then, omitting more than a reference to the stupendous undeveloped mineral wealth of our colonies, we are independent of the world as regards our metal requirements.

Russia and Belgium supply us with the bulk of the FLAX we import, but Australia exported to Great Britain flax to the value of £74,000 in 1891, a not unimportant item.

EGGS, it is often urged, ought not to be an article of import if our farmers did their duty; but we are bound to say that the larger holdings of this country, as compared with those of other countries, are not adapted to egg production on a large scale, because their number is limited. France, Germany, Belgium, Denmark, and Russia furnish the bulk of the millions, valued at £3,500,000, which we import; but Canada has an excellent trade with us, which will be developed largely in a few years, now that her supply to the United States is likely to be withdrawn.

FRUIT chiefly comes to us from Spain, France, Turkey, the United States, and Italy, which countries receive most of the £6,000,000 we pay for it; but the colonies contribute handsomely, and in return they take nearly £700,000.

RICE we consume to the value of nearly £2,800,000, but of this sum our Indian, Burmese, and Straits dependencies receive £2,236,000, so that for this article of food we can rely on our own exertions.

LEATHER forms a very large item of import, but although we pay less than £50,000 out of the import value of £2,554,000 for dressed leather, which chiefly comes from the United States, France, and Holland, our colonies and dependencies, chiefly Australia and India, supply us to the value of £2,680,000 out of a total import of undressed leather valued at £3,882,000, in addition to a very large quantity of hides and skins.

CAN THE EMPIRE FEED ITS PEOPLE?

Let us now ascertain the total production of the most important commodities by the chief British possessions to which reference has previously been made, and compare it with the imports into the United Kingdom. We refer to tea, coffee, sugar, and tobacco.

TABLE SHOWING THE TOTAL PRODUCTION OF TEA, COFFEE, SUGAR, AND TOBACCO BY BRITISH POSSESSIONS IN 1891. "000" OMITTED.

	Tea.	Coffee.	Sugar.	Tobacco.
India (exports)	*5,219	1,454	417	133
Australia .....	....	....	70 tons	52 cwt.
British Guiana.....	....	....	110 „	....
Mauritius .....	....	....	120 „	....
West Indies .....	....	....	211 „	(300 acres)
The Cape .....	....	....	....	10,993lbs.
Natal	(1,230 acres)	....	11 „	....
Ceylon (exports)	*22,899	5,700	....	†(15,000 acres)
Straits Settlements (exports)	....	\$1,378	\$2,576	....
Hong Kong (exports)	£194	....	....	....

The above table shows that while the production of coffee and tobacco is large, the value of the tea and sugar our dependencies are now producing is enormous; nor is this all, for in colony after colony, and settlement after settlement, official writers upon each refer to the suitability of each for one or more of these crops. We next give the

IMPORTS INTO THE UNITED KINGDOM, 1891. "000" OMITTED.

	lbs.	£
Tea.....	240,779	10,733
	cwt.	
Coffee.....	727	3,437
Sugar.....	28,802	20,488
	lbs	
Tobacco.....	63,493	3,423
		£38,081

As the value of the imports of these four commodities amounts to thirty-eight millions sterling in value, it is easy to see that whatever the possibilities, and they are admittedly great, we are yet far from being independent of foreign countries.

Supplementing the figures which represent the sugar crops of the British possessions, we now add the production of foreign countries in both cane and beet sugar.

The figures in parentheses are the total figures. * The figures for India and Ceylon denote tens of rupees, which at par (2s. per rupee) would be equal to £1 sterling. † Average.

CAN THE EMPIRE FEED ITS PEOPLE?

SUGAR PRODUCED IN VARIOUS FOREIGN COUNTRIES.

CANE SUGAR.		Tons.
Spanish Cuba	598,000	
Java	316,000	
Brazil	202,000	
Manilla	180,000	
United States	110,000	
China	100,000	
Guadaloupe	49,000	
Martinique	45,000	
Porto Rico	77,000	
Sandwich Islands	60,000	
Argentine Republic	60,000	
Egypt	32,000	
Reunion	32,000	
Peru	30,000	
Mexico	30,000	
Guinea	8,000	
		1,929,000

BEET SUGAR, 1889-90.		Tons.
Germany	1,240,088	
France	762,752	
Austria-Hungary	738,147	
Russia and Poland	467,493	
Belgium	196,839	
Holland and other countries	137,788	
		3,543,107

The United States is also a large producer.

The tobacco crop is largest in the United States, where it reaches over 4,000,000 cwt.

TOBACCO CROPS OF THE CHIEF COUNTRIES OF THE WORLD.

"000" OMITTED.		Cwt.
United States, 1883-7	4,418	
Austria-Hungary	1,277	
Russia	1,500	
Germany	758	
France	421	
Italy	120	
Turkey	70	
Holland	58	
Australasia, 1889-90	34	
In 1888-9 the Australasian crop was	70	

The formidable nature of the task set our colonists in competing against the above countries is shown by the figures representing what they grew.

CAN THE EMPIRE FEED ITS PEOPLE?

AVERAGE ANNUAL CONSUMPTION OF SUGAR (CANE AND BEET) PER HEAD
IN VARIOUS COUNTRIES.

	Sugar. lbs.	Tobacco. lbs.		Sugar. lbs.	Tobacco. lbs.
New Zealand.....	118.77	.. 1.75	Sweden	17.52	.. 1.87
South Australia....	102.11	.. 1.32	Belgium	15.74	.. 3.15
West Australia	93.51	.. 3.26	Germany	15.01	.. 3.00
Victoria	90.75	.. 2.93	Austria	13.23	.. 2.73
Tasmania	90.49	.. 1.85	Norway	11.37	.. 2.29
United Kingdom ..	68.99	.. 1.38	Portugal.....	9.56	.. ..
Queensland	62.93	.. 3.49	Russia.....	7.69	.. 1.82
New South Wales..	60.95	.. 3.53	Spain	5.11	.. 1.10
Denmark	29.69	.. 2.24	Italy	3.20	.. 1.28
Holland	28.37	.. 6.92	United States ..	..	.. 4.40
Switzerland	22.81	.. 3.24	Canada .....	..	.. 2.11
France	22.61	.. 2.05			

Some of the above figures differ from those given by different statisticians.

The following estimated consumption of tea and coffee in 1890 is given by Mr. Coghlan, the official statistician of New South Wales :—

COLONIES:—	Tea. lbs.	Coffee. ozs.	Tea and Coffee. ozs.
New South Wales.....	6.8	.... 8.7	
Victoria	7.3	.... 17.8	
Queensland.....	8.5	.... 11.2	
South Australia.....	5.6	.... 20.8	
West Australia	10.7	.... 21.0	
Tasmania	7.2	.... 12.2	
New Zealand.....	6.0	.... 8.1	

COUNTRIES:—

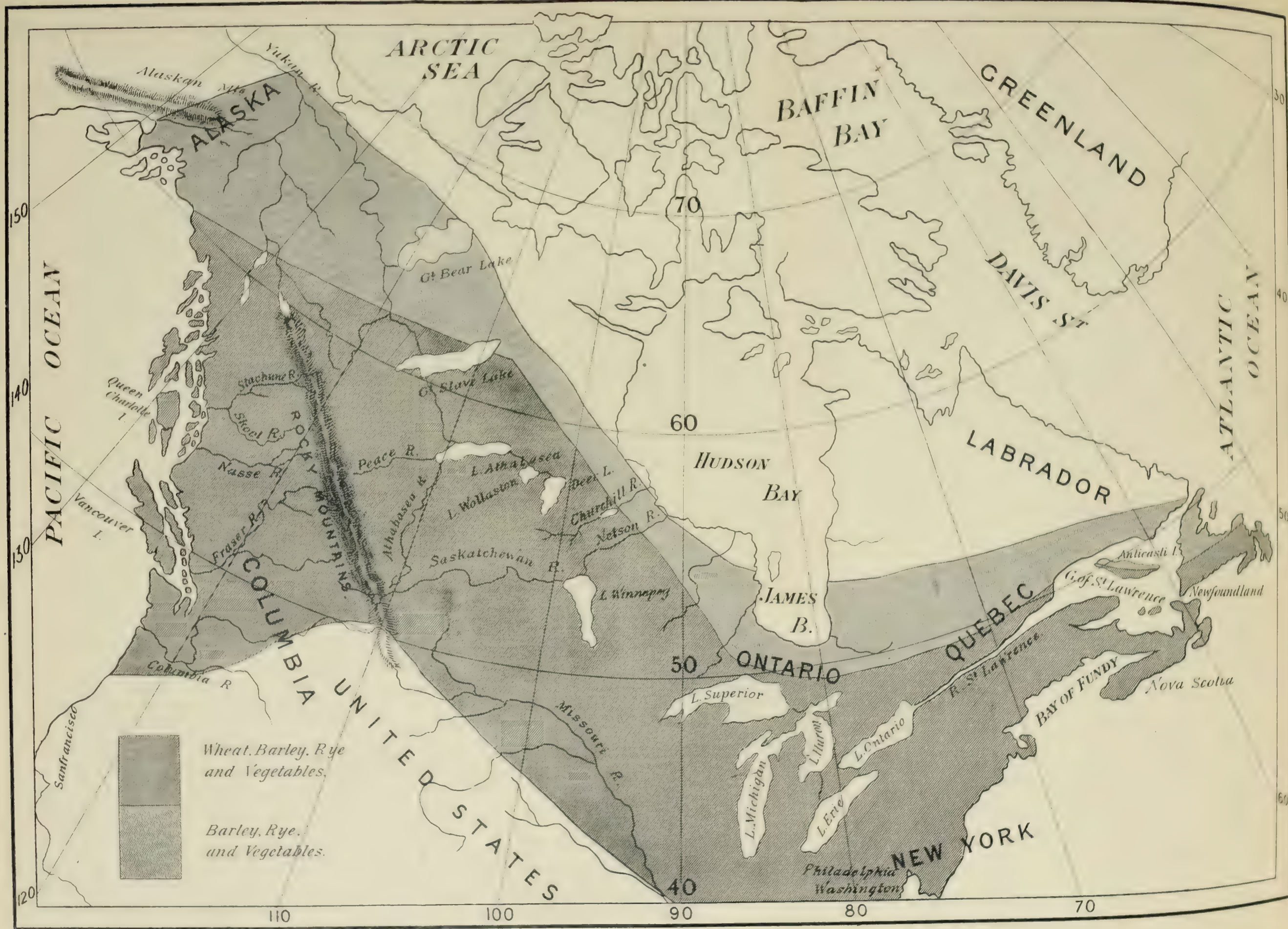
United Kingdom.....	91
France	66
Germany	78
Russia	6
Austria	28
Italy	20
Sweden	112
Norway	144
Holland.....	240
United States	162
Canada	72

CANADA.

CANADA, says one of the official reports, has hundreds of millions of acres of the most fertile land in the world, simply waiting for population to cultivate it, capable of yielding in abundance all the

CAN THE EMPIRE FEED ITS PEOPLE?

products of a temperate climate for the good of mankind. The area of Canada, exclusive of water, is 3,315,647 square miles. The provinces of Ontario and Quebec alone are double the size of Germany, British Columbia is half as large again as the same empire, Manitoba is larger than England and Wales combined while the North-West Territories are three-quarters the size of Europe. The great Red River plateau of Manitoba is estimated to contain 7,000 square miles of the finest wheat land, while the area of the plateau which is still higher, contains 105,000 square miles. The area of the north centre of Canada formerly considered unfit for settlement, 1,260,000 square miles, is now found to include 860,000 miles fit for settlement, of which 316,000 square miles are considered suitable for wheat growing, 407,000 for barley, and 656,000 for potatoes. It is now an established fact, proved not alone by the farmers who till the soil, but by delegates from the United Kingdom who, with practical knowledge have made examinations on the spot and have confirmed, and more than confirmed, that in Canada there is an enormous area of soil of the highest quality upon which future crops can be grown for export. When this soil is occupied there is reason to believe that the United States will have practically ceased to export wheat. In the province of Ontario by far the greater portion of the land is of high quality, much of it being of the very best kind. The same high praise cannot be given to Quebec although there is some excellent land in the province. In Manitoba the soil is perhaps equal to that of any country in the world; it chiefly consists of a black vegetable mould formed by the decay of the plants which have lived, died, and decayed upon it. A rich easily-worked loam of this character is equal to the growth of successive cereal crops for a generation without manure. One of the British delegates, remarking upon its richness in the elements of plant food, said that the addition of manure would do more harm than good, and that by occasionally turning up a little of the subsoil the fertility of the surface was renewed, so that wheat could be grown year after year without exhaustion. Maize, however, cannot be grown on account of the temperature, but vegetables grow as freely as grain. West of Winnipeg, the vast plain across which no eye can reach, is divided into three altitudes. The first, from 800 to 900 feet consists chiefly of alluvial and rich vegetable soils, which constitute the best wheat-growing lands on the American continent. Upon the second, which is situated at an average of some 1,600 feet above sea level, the black mould is supplemented by soil of a more variable character, but which is closely allied to the rocks beneath it, and both corn and cattle can be grown; while upon the third area, which reaches a much higher altitude, there is almost unbounded room for the feeding of large herds of cattle. In average years there is nothing



CAN THE EMPIRE FEED ITS PEOPLE?

in the severe winter, lasting as it does from November to April, some five months, to prevent the successful growing of wheat or the feeding and breeding of cattle. In some parts of the North-West Provinces, however, wheat is not grown with such success, the altitude being too high, and it has already been pointed out that an altitude of 700 feet is equal to a degree of latitude. Mr. Speir, a very able Scotch farmer who went out to inspect the country with other delegates at the request of the High Commissioner, and with whom we have had some conversation on the subject, says that in the southern and middle districts of Manitoba are to be found millions of acres of the finest farming land to be met with anywhere, these same plains producing a quality of wheat which sells in Britain higher than that of any other country. He remarked, too, that the plough furrow may often be run for mile after mile without interruption. The wheat yield in the province averages from 18 to 20 bushels, while oats give some 40 bushels per acre, but these figures are easily increased by good farming. The Welsh farmer delegate to Canada, Mr. Edwards, has shown the cost of growing wheat in Manitoba to be £1. 18s. 6d. per acre, whereas upon the average of four years the yield was 23 bushels, which sold at an average of 3s. 3½d. per bushel, leaving a net profit per acre of 37s. 2½d. Similar figures adduced in connection with wheat growing in Wales showed a profit of only 6s. 9d., or, adding the interest on the working capital, no profit at all in spite of the much higher yield. This gentleman is of opinion that Canadian farmers will be able to cope with the extra demand for home consumption, and that the production of settlers will be free for exportation. He quotes an instance in which a farmer with one man, a team of oxen, and a team of horses exported 1,800 bushels of wheat, from which he infers that as the country is more largely populated the exports will increase.

In British Columbia there is also an immense area of rich land, the alluvial deposit being in many places fifteen feet thick, cereals, grass, and fruit growing in luxuriance upon it. Here, too, is more of the black soil to which we have referred. The rich delta lands of the Fraser river are being drained, and farmers fortunate enough to obtain farms upon it will probably find it the best land in the west.

In the North-West Provinces wheat land is plentiful. There is a large proportion of black soil in Assinaboia.

In Saskatchewan, where settlers have as yet put in a very poor appearance, there is also plenty of soil of the same character, and much more which is better adapted to stock breeding. While Alberta cannot compare with the richer soil of some of the other provinces, it is admirably adapted for stock raising and ranching, the climate being excellent. The map shows the zone of agricultural crops of Canada.

CAN THE EMPIRE FEED ITS PEOPLE?

MEAN TEMPERATURE OF CANADIAN PROVINCES.

	Summer.	Winter.
Ontario—Guelph	64.4	19.5
Hamilton	68.0	25.6
Kingston	66.8	20.6
Manitoba—Brandon	58.1	-1.8
Winnipeg	60.3	1.0
British Columbia—Victoria	57.8	39.0
Vancouver	62.0	33.8
North-West Territories—Regina	59.2	-2.4
Qu'Appelle..	57.1	-0.1
Calgary	56.6	12.2

In 1891, of eight registrations of the temperature—one in each of the great divisions of the Dominion—one only, Winnipeg, showed a low winter temperature, varying from 7.4 in February to 15.4 in November, the lowest mean temperature in the seven summer months being 40.5 in October. In Toronto (Ontario), the lowest mean was 24.2 in January. In Port Moody (British Columbia) December gave the lowest mean with 36.4. In the maritime provinces the winter months were practically restricted to three—January, February, and March—but in no case was the mean temperature of any month lower than 16.4. Dealing with the rainfall, and taking 1891 as an example, we find that at Port Moody it was exceptionally heavy, but at Calgary (Alberta) it was only 10.53 inches, at Winnipeg (Manitoba) 19.85, and at Toronto (Ontario) 30.91.

Let us next inquire whether there is any probability of the great wheat areas being sufficiently occupied. The following comparative figures point to the belief that at an early period the population will be considerable, and the production of corn and meat consequently large, especially when we consider the great efforts which are now being made to induce our own people to emigrate:—

POPULATION OF THE WESTERN AGRICULTURAL PROVINCES.

	1871.	1881.	1891.
Manitoba.....	18,995	62,260	152,506
British Columbia.....	36,427	49,459	97,613
The Territories .....	..	56,446	98,967

According to the above figures, Manitoba increased by 247 per cent between 1871 and 1881, and by 145 per cent between 1881 and 1891. British Columbia increased by 97 per cent in the last decade, and the Territories by 75 per cent. During the same period Quebec only increased by 9.53 per cent, Ontario by 9.93, and the maritime provinces by a mere fraction.

The value of the exports from Canada in 1890 was, as regards cattle and sheep, greater by \$1,250,000 than in 1889; butter, cheese, bacon, and hams also showed an increase of \$775,000.

CAN THE EMPIRE FEED ITS PEOPLE?

Foodstuffs, including grain, flour, pulse, potatoes, and fruit, however, showed a slight diminution, chiefly owing to the fall in prices, for, as compared with the prices of 1889, the exports in this class show a considerable increase. In a few figures the actual export value of food in 1890 may be stated as follows:—

VALUE OF EXPORTS (FOOD) FROM CANADA IN 1890.

Articles.	Value Exported. 1890.	More or less than 1889.		
		Quantity.	Price.	Together.
Animals—Cattle, sheep, and swine	\$ 8,226,916	\$ -1,376,000	\$ +2,625,000	\$ +1,249,490
Articles of food and drink..	30,882,597	+2,208,000	-2,283,000	-75,668

Thus, while the figures show a decrease in the value of the exports of food and drink of \$2,283,000 upon the basis of 1889 prices, the actual fact is that the exports were so considerably greater than in 1889, that the decrease was reduced to \$75,668. Again, if we take the United States as a standard—and it is a very high one—we find that Canada shows to great advantage in her

FOREIGN TRADE "PER CAPITA," 1891.

Country.	Imports.	Exports.	Total Trade.
	\$ cts.	\$ cts.	\$ cts.
Canada	24 77	20 32	45 09
United States	13 45	14 08	27 54
In favour of Canada.....	11 32	6 24	17 55

The exports in barley have fallen off seriously, but the increase in the exports of wheat, peas, beans, flour, cheese, and butter are most marked as compared with both 1889 and 1890. The following tables show the value of the exports of the produce of the soil from Canada to the principal countries with which she trades:—

ANIMALS AND THEIR PRODUCTS. "000" OMITTED.

	1887.	1888.	1889.	1890.	1891.
	\$	\$	\$	\$	\$
Great Britain	16,315	16,571	16,227	18,578	20,991
United States	7,291	7,595	7,137	5,966	4,316
France .....	..	52	33	40	..
Germany	74	50	66	152	266
West Indies	8	12	21	22	43
Newfoundland	415	372	308	276	276
Other countries	141	63	100	70	73
	24,246	24,719	23,894	25,106	25,967

CAN THE EMPIRE FEED ITS PEOPLE?

AGRICULTURAL PRODUCTS. "000" OMITTED.

	1887.	1888.	1889.	1890.	1891.
	\$	\$	\$	\$	\$
Great Britain.....	9,438	4,292	3,674	3,661	5,254
United States.....	7,966	10,306	9,125	7,519	7,291
France.....	..	9	1	1	6
Germany.....	258	49	17	184	129
West Indies.....	171	76	128	148	153
Newfoundland	821	596	386	232	612
Other countries.....	169	103	80	159	218
	18,826	15,436	13,414	11,908	13,606

Thus Great Britain imports 80·84 per cent of the animal and 38·44 per cent of the agricultural products, showing a growing increase year by year since 1887, whereas the United States, the only other serious competitor in the Canadian markets, imports 16·62 per cent of the animal and 53·35 per cent of the vegetable produce of the Dominion.

Communication by railway with the seaboard is one of the great factors in the future development of Canada. If the settler could follow the railway in the still unbroken North-West and in the still untilled parts of the great wheat districts he would rapidly do so, but as he must precede it he is deterred, the great distances from towns and markets, to say nothing more, added to the hardship of the life for several years, preventing many a man making that change in his career which would unquestionably result in benefit to himself and in a still greater degree to his family after him. In Canada lines of rail have only been opened when public policy demanded it, there being immediate need of communication. In India, however, and also in our principal colonies, railways have been chiefly, and sometimes entirely, built by the Government. In June, 1891, the mileage had increased in Canada to 14,009 miles, showing an increase of over 7,000 miles in ten years. Aid has been given by the Dominion Government and by Provincial Governments to the extent of 23 per cent a fact which alone shows the difficulty of developing railway communication.

In 1890 the wheat crop of Canada was estimated at 40,000,000 bushels. Of this, nearly 3,500,000 bushels were exported, 32,000,000 bushels being consumed, or 6·6 bushels per head of the population. In previous years, 1882-4-5, slightly larger quantities were exported but the imports were then considerably greater and the population smaller. The considerable imports of wheat and flour into Canada up to 1879 were suddenly checked, falling at once to a nominal value, by the imposition of a small duty. That American wheat has

CAN THE EMPIRE FEED ITS PEOPLE?

been placed in the British market at great advantage, as compared with Canadian, is evident from the fact that the freights from Chicago are one-half what they were twenty years ago, while shippers have carried grain across the Atlantic as low as 2d. per bushel. It is, however, evident that until the great North-West is populated and further opened up by railways, the exporting power of Canada will not be considerably increased.

THE YIELD OF GRAIN CROPS, ACCORDING TO OFFICIAL STATISTICS, IS AS FOLLOWS ("000" OMITTED):—

Crops.	1890.	1891.	Average Yield.	
			For 10 Years.	Per Acre.
	Bushels.	Bushels.	Bushels.	Bushels.
Ontario—Fall Wheat	14,267	21,872	18,059	20·0
„ Spring Wheat ..	7,683	10,711	8,882	15·8
„ Barley	15,600	16,141	19,349	26·0
„ Oats	52,768	75,009	58,410	35·1
Manitoba—Wheat	14,665	23,191	..	25·3
„ Oats	9,513	14,762	..	48·3
„ Barley	2,069	3,197	..	35·6

Canada has during the past eighteen years exported 1,292,000 head of cattle, 5,500,000 sheep, and 255,000 horses. The year 1891 has shown a falling off in horses and sheep, but the cattle trade continues to increase. The cattle exported to Great Britain now form the bulk of this trade, the United States, the only other formidable competitor, taking less year by year. In 1891 107,600 head landed on our shores, or 41,000 more than in the previous year. As mixed farming, which is so much recommended in Ontario and Quebec, extends, we may expect the exports to increase in a still more rapid manner. The sheep trade is unsatisfactory, fluctuating considerably, and at no time really extensive, although in 1884 105,000 head were sent us, as compared with 40,000 in 1891. With a family arrangement in existence, the sheep now sent across the border into the States, which are much more numerous, might be exported to this country.

Let us next see what Canada sends us in the supply of provisions. We take the last five years:—

QUANTITIES OF PROVISIONS EXPORTED FROM CANADA, 1887-91. "000" OMITTED.

Year.	Bacon, Hams, &c.	Beef.	Other Meats.	Cheese.	Butter.	Eggs.
	lbs.	lbs.	lbs.	lbs.	lbs.	doz.
1887	12,202	450	1,790	73,604	5,485	12,945
1888	7,389	550	3,868	84,173	4,415	14,170
1889	4,443	449	1,554	88,534	1,780	14,028
1890	7,813	251	2,187	94,260	1,951	12,839
1891	7,669	309	3,219	106,202	3,768	8,022

CAN THE EMPIRE FEED ITS PEOPLE?

VALUES OF PROVISIONS EXPORTED FROM CANADA. "000" OMITTED.

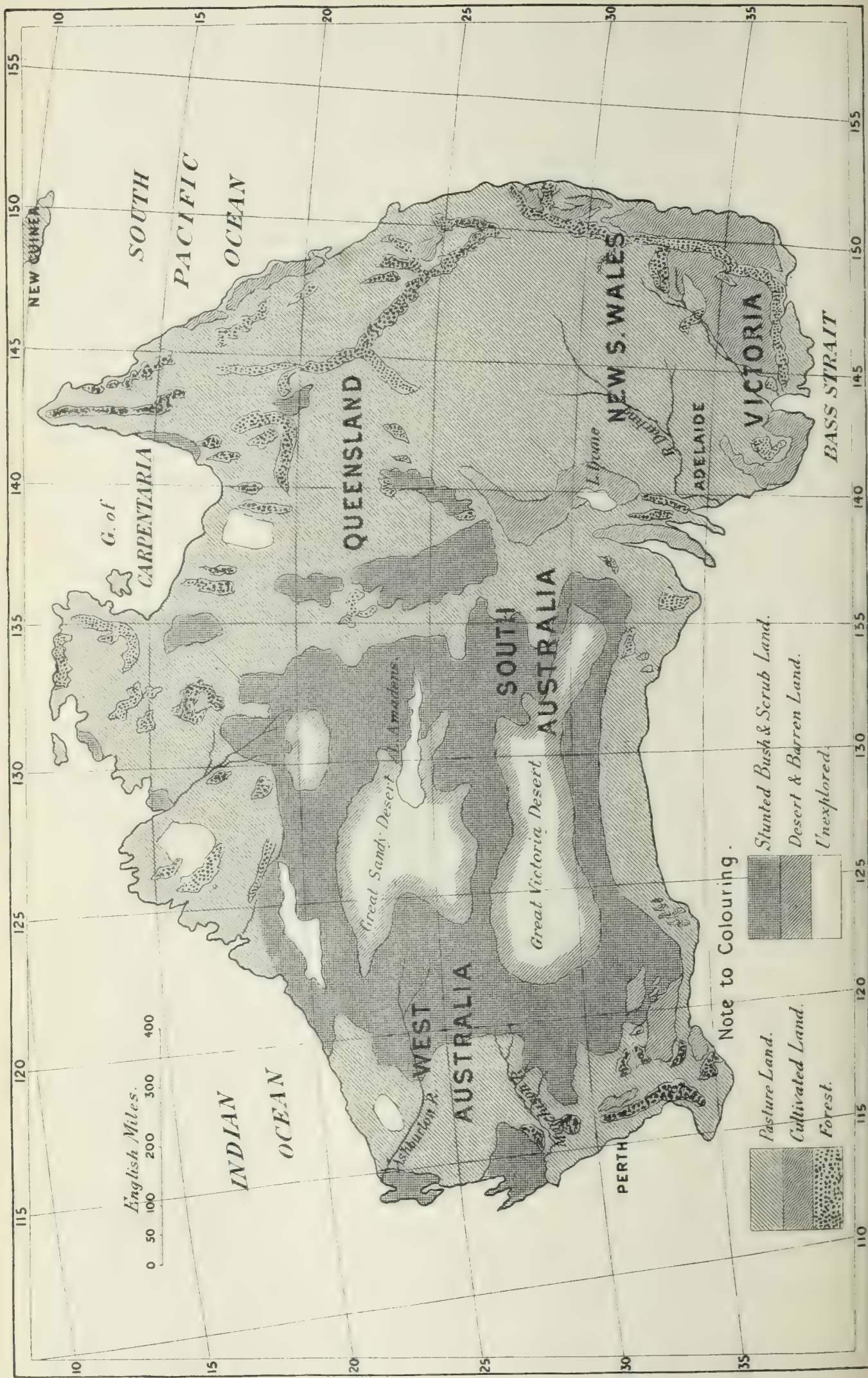
Year.	Bacon, Hams, &c.	Beef.	Other Meats.	Cheese.	Butter.	Eggs.
	\$	\$	\$	\$	\$	\$
1887	955	22	129	7,108	979	1,825
1888	686	24	335	8,928	798	2,122
1889	407	27	103	8,915	331	2,159
1890	651	15	185	9,372	340	1,795
1891	635	16	311	9,508	602	1,160

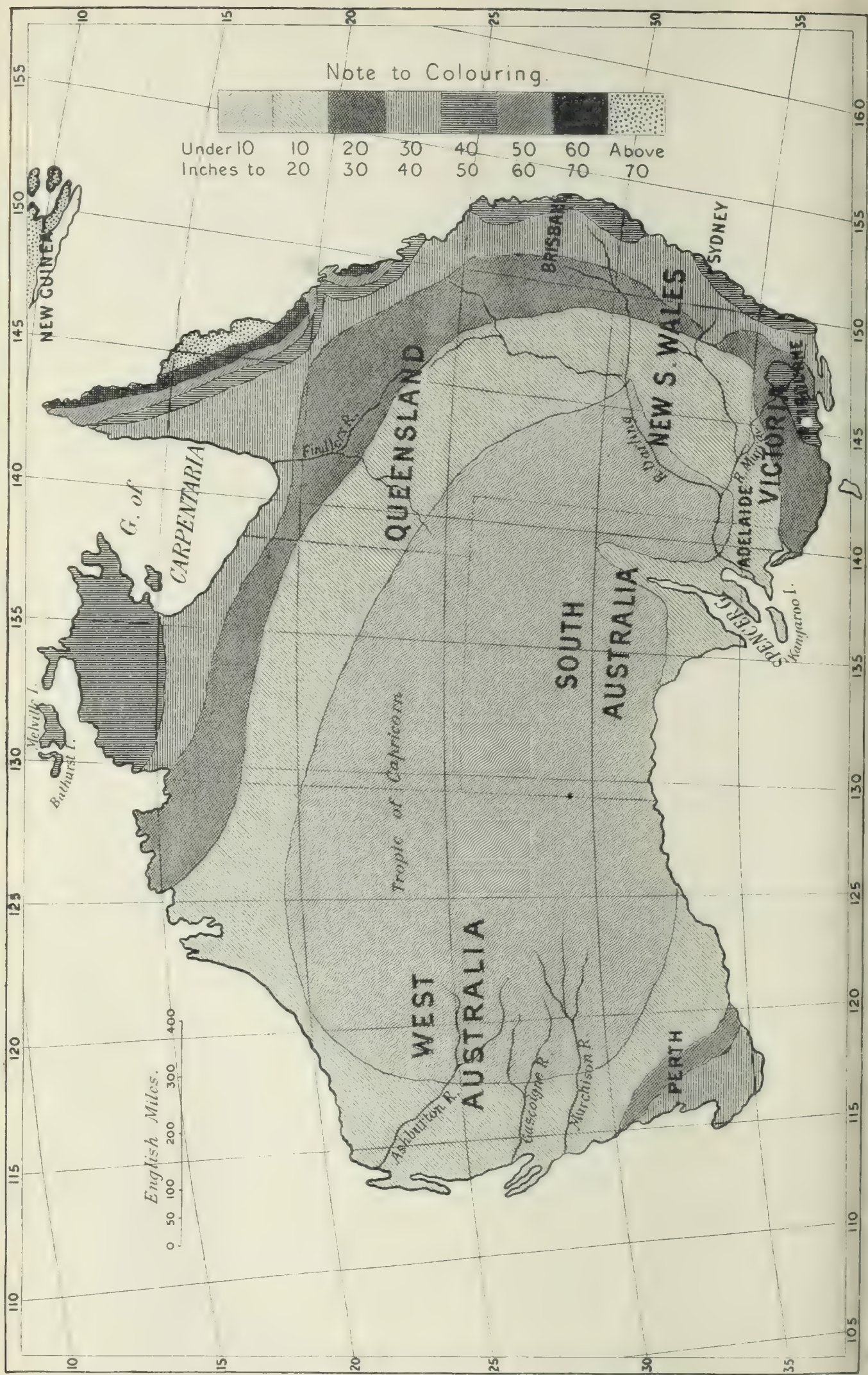
The trade in bacon, beef, and butter has fallen off considerably as compared with ten years ago, but cheese shows a consistent increase; and eggs form a considerable item, although 1891 shows a smaller return than in previous years. It should be mentioned, however, that pork and other meats are imported from the United States to the value of some \$1,100,000.

In 1891 the provisions exported reached 133,000,000lbs. in weight, and here, too, the increase is consistent, and valued at \$12,250,000, of which \$11,000,000 were paid by Great Britain, which is Canada's market. Efforts are being made to revive the butter trade, and recent shipments having realised excellent prices, there is every probability that the attempt will be crowned with success. The manufacture of sugar is not understood in Canada, but, as the Government encourages the sugar industry by the payment of a bounty, the attention which is being devoted to the cultivation of the beet will probably produce some practical results. Tobacco and maize are not produced in Canada in quantities worthy of very serious notice.

The food products exported from Canada in 1891 reached \$38,250,000 in value, against \$324,000,000 exported from the United States. A consideration of our previous remarks will, however, show that the bulk of these foods could be equally well produced in Canada, and doubtless they would be if she were adequately assisted by a sufficiently large population. We now present a table of the leading food products, showing the respective quantities imported by Great Britain from Canada and the United States respectively, and from other British possessions and foreign countries.

The following table shows at a glance the enormous preponderance of the United States and other foreign countries in our markets as compared with our own colonies. Taking the gross value of the articles imported at 1,682,971,000 units, which of course do not represent the full importance of the case, we find that only 225,903 are supplied by our own possessions, and these are chiefly in the form of mutton, beef, cheese, wheat, and bacon. On the other hand, the principal items representing imports from foreign





CAN THE EMPIRE FEED ITS PEOPLE?

countries are wheat, flour, barley and oats, cattle, fresh and salt meat, lard, butter, cheese, and eggs—all of which are produced in our own colonies, although as yet not in such quantities as would enable us to dispense entirely with foreign assistance, even supposing it were necessary that we should do so in the interest of the people of the empire.

AVERAGE IMPORTS INTO GREAT BRITAIN, 1888-89-90. "000" OMITTED.

ARTICLES.	Total.	IMPORTED FROM				PERCENTAGE OF IMPORTS FROM	
		United States.	Canada.	Other British Posses'ns.	Other Foreign Countries.	United States.	Canada.
Cattle ....No.	524	226	60	2	159	43·07	11·51
Sheep.....,,	664	8	43	1	607	1·22	6·56
Mutton lbs.	144,460	162	2	76,769	67,362	·11	..
Pork,,	43,909	15,359	7	13	22,933	34·98	·02
Bacon and Hams	488,257	386,915	6,170	4	83,639	79·24	1·26
Beef, fresh, lbs.	152,211	133,925	18	9,381	1,644	87·99	·01
Meats, other ,,	80,395	41,745	1,424	11,909	17,462	51·92	1·77
Lard,,	125,101	120,999	80	32	827	96·72	·06
Butter,,	210,074	8,859	1,091	3,266	196,888	4·22	·52
Cheese,,	222,868	77,269	88,490	2,364	43,576	34·67	39·70
Eggs .....doz.	97,045	260	1	139	96,849	..	..
Wheat..bushels	109,689	37,047	746	20,741	56,442	33·77	·68
Barley,,	43,076	986	11	118	42,287	2·29	·03
Oats,,	52,144	2,308	211	209	49,399	4·42	·41
Peas,,	3,715	*18	1,780	649	1,197	·48	47·91
Flour .. barrels	8,839	6,921	131	41	1,795	78·30	1·49
	1,682,971	.....	100,265	125,638	.....	..	..

AUSTRALASIA.

THE area of the great Continent of the South may be better understood when we say that it is twenty-four times larger than the United Kingdom, or fifteen times larger than France. It is also five-sixths as large as the United States. Its actual area is 1,884,561,920 acres, or nearly 3,000,000 square miles.

	Area. Square Miles.	Persons to Square Mile.
New South Wales	309,175	.. 3·7
Victoria	87,884	.. 12·9
Queensland	668,224	.. ·59
South Australia	903,425	.. ·35
Western Australia	975,920	.. ·05
Continent of Australia	2,944,628	.. 1·0
With Tasmania and New Zealand..	3,075,238	.. 1·2
Europe	3,756,002	.. ..
United States	3,027,591	.. 21·3
Canada	3,456,383	.. 1·4
United Kingdom	121,481	.. 311·9

* Beans included.

Salted beef is not included.

CAN THE EMPIRE FEED ITS PEOPLE?

Area, however, is of little avail without people to occupy it; and, as the above figures show, the number of persons per square mile is very small. The population of Australasia is as follows:—

POPULATION OF AUSTRALASIA, 1891.

New South Wales	1,132,234
Victoria.....	1,140,405
Queensland	393,718
South Australia	320,431
Western Australia	49,782
Tasmania	146,667
New Zealand	626,658

The area of agricultural lands which is cultivated, excluding that under fallow and sown grasses in New Zealand, is as follows. The wheat acreage is added:—

CULTIVATED LAND, 1891.

	Acres under Wheat.		Acres under Tillage.
New South Wales	333,233	....	1,498,835
Victoria.....	1,145,163	....	2,652,768
Queensland	10,390	....	239,618
South Australia	1,673,573	....	2,649,098
Western Australia	33,820	....	122,032
Tasmania	39,452	....	517,174
New Zealand	301,460	....	1,636,179
	3,537,091	....	9,315,704

During the years 1888–91 the gross production of wheat has amounted to—in 1888–89, 47,588,161 bushels; in 1889–90, 42,480,131 bushels; in 1890–91, 32,839,505 bushels. The average yield of grain in each colony, if we except New Zealand, is not high; but over such an acreage it is likely to tell upon Australian commerce, and ultimately upon British prices.

AVERAGE YIELD OF CEREAL CROPS PER ACRE.

	Wheat.		Oats.		Barley.
New South Wales	13·89	....	20·40	....	20·21
Victoria	11·11	....	21·20	....	20·18
Queensland	11·62	....	14·44	....	20·18
South Australia	7·66	....	12·00	....	12·59
Western Australia	11·86	....	16·88	....	14·76
Tasmania	18·40	....	25·54	....	23·61
New Zealand.....	25·60	....	31·93	....	27·30

The belief has been expressed that the wheat-exporting capacity of India has reached its limit, and in view of the fact that the exports for 1891 only amounted to 26,730,000 bushels, or nearly 4,000,000 bushels less than the average of the preceding eleven years, the belief is strengthened. We shall be enabled to see by the next series of figures how the present production per acre compares with the production of past years. In New South Wales the average

CAN THE EMPIRE FEED ITS PEOPLE?

has not been reached in three out of the past four years. The same may be said of Victoria, Tasmania, and New Zealand. In Queensland it is quite the reverse—there has been one bad year, the other three having far exceeded the average; but three out of four of the preceding four years were very bad indeed, showing clearly how much the colonists depend upon the weather, and how necessary their present action in providing against drought really is. South Australia has had a succession of inferior crops, whereas in Western Australia the average is maintained. We give the actual statement of the case in figures:—

AVERAGE YIELD OF WHEAT PER ACRE IN AUSTRALASIA, 1882-91.

	1882.	1883.	1884.	1885.	1886.	1887.
New South Wales	15.35	16.35	15.00	15.52	10.45	17.37
Victoria	9.40	9.03	14.10	9.52	8.99	11.49
Queensland	8.41	13.89	4.34	16.17	5.11	3.12
South Australia	4.57	4.21	7.94	7.53	7.53	7.53
Western Australia	7.00	11.00	13.00	13.00	11.50	12.25
Tasmania	18.88	20.27	17.74	19.30	17.32	17.91
New Zealand	22.69	26.28	26.02	25.43	24.40	24.89
	1888.	1889.	1890.	1891.	Mean, 18 Years.	
New South Wales	12.06	4.76	15.65	10.95	13.89	
Victoria	10.81	7.10	9.75	11.13	11.11	
Queensland	22.10	0.89	15.88	20.02	11.62	
South Australia	9.75	3.85	7.91	5.62	7.66	
Western Australia	9.80	10.50	14.00	13.75	11.86	
Tasmania	16.67	20.16	15.42	16.30	18.40	
New Zealand	26.37	24.22	25.15	18.99	25.60	

The wheat-exporting Australasian colonies are Victoria, South Australia, and New Zealand, as the following figures show:—

WHEAT IMPORTED AND EXPORTED FROM THE AUSTRALASIAN COLONIES, 1890.

FLOUR CALCULATED AS WHEAT. "000" OMITTED.

Colony.	Wheat, Flour, &c.		Excess of	
	Imported.	Exported.	Exports over Imports.	Imports over Exports.
	Bushels.	Bushels.	Bushels.	Bushels.
Victoria	192	2,378	2,185	..
New South Wales	2,809	1,249	..	1,560
Queensland	2,158	5	..	2,153
South Australia	1	10,739	10,738	..
West Australia	130	..	..	130
Tasmania	241	8	..	232
New Zealand	1	4,968	4,968	..
Total	5,533	19,350	13,816	..

CAN THE EMPIRE FEED ITS PEOPLE?

We next come to the oat crop, and it appears from the table below that the average is well maintained in all but South Australia, which seems to suffer much more than any other colony by a succession of unsuitable seasons. We cannot but express our astonishment that under such conditions oat growing is continued at all.

AVERAGE PRODUCTION OF OATS IN BUSHELS PER ACRE.

	1887.	1888.	1889.	1890.	1891.	Mean, 19 Yrs.
New South Wales	25·08	20·35	13·77	24·30	18·20	20·40
Victoria	22·91	22·92	14·20	23·87	22·25	21·20
South Australia	12·20	12·20	5·65	12·76	9·32	12·00
Queensland	10·41	24·26	5·65	19·41	21·82	14·44
West Australia	16·00	15·73	23·42	20·00	19·50	16·88
Tasmania	25·95	18·20	27·97	28·60	25·04	25·54
New Zealand	30·92	31·24	29·89	32·09	28·73	31·93

AREA CROPPED WITH OATS, AND YIELD, 1890-1.

	Acreage.		Busheles.
New Zealand	346,224	....	9,947,036
New South Wales	14,103	....	256,659
Victoria	221,048	....	4,919,325
Queensland	411	....	8,967
South Australia	12,475	....	116,229
West Australia	1,933	....	37,713
Tasmania	20,740	....	519,395

The barley crop would seem to be as ample, and consequently more profitable, than the oat crop. The acreage sown, produce, and average yield (1873-90) are as follows:—

BARLEY PRODUCE IN AUSTRALASIA, 1890-1.

	Acres.		Busheles.		Busheles.
New Zealand	32,740	....	758,833	....	27·76
New South Wales	4,937	....	81,383	....	19·79
Victoria	87,751	....	1,571,599	....	19·83
Queensland	584	....	12,673	....	20·47
South Australia	14,472	....	175,583	....	12·59
West Australia	5,322	....	87,813	....	14·88
Tasmania	4,376	....	99,842	....	23·62

LIVE STOCK.

THE live stock of the colonies of Australasia have increased in striking proportions during the past thirty years, in spite of the severity of the drought in some seasons. Horned cattle increased from 4,000,000 in 1861 to 8,250,000 in 1881, and nearly 11,000,000 in 1891. Sheep have increased from 22,500,000 in 1861 to 75,000,000 in 1881, and 116,000,000 in 1891. They already exceed in number the

CAN THE EMPIRE FEED ITS PEOPLE?

sheep of every other continent, Europe excepted, numbering at least one-fourth the sheep of the world. Swine are not so numerous. The following tables will show how the different breeds are divided:—

LIVE STOCK IN THE AUSTRALASIAN COLONIES ON MARCH 31, 1891. "000" OMITTED.

	Cattle.		Pigs.
New South Wales	1,909	....	284
Victoria	1,782	....	282
Queensland	5,558	....	96
South Australia	574	....	118
Western Australia	134	....	32
Tasmania	162	....	81
New Zealand.....	831	....	314

As we shall see in the remarks devoted to Queensland, that colony is pre-eminently the cattle colony at the present time, and with development it is likely to remain so. New South Wales, however, is far ahead of Queensland as a sheep-raising colony, not only owning a prodigious number but actually half the sheep possessed by the whole Australasian colonies.

NUMBER OF SHEEP IN AUSTRALASIA, MARCH 31, 1891.

	Number.
New South Wales.....	55,986,431
Victoria	12,692,843
Queensland	18,007,234
South Australia.....	7,050,544
Western Australia	2,563,866
Tasmania	1,619,256
New Zealand.....	18,117,186
	116,037,360

NUMBER OF CATTLE, SHEEP, AND PIGS IN GREAT BRITAIN AND HER CHIEF POSSESSIONS. "000" OMITTED.

	Year.	Cattle.	Sheep.	Pigs.
United Kingdom	1891	11,343	33,533	4,272
Malta	1887	10	14	..
Cyprus	1890	45	230	..
India	1887-8	46,089	25,880	578
Ceylon	1889	1,037	75	..
Mauritius	1884	15	30	30
The Cape	1891	2,210	*23,334	288
Natal	1890	686	827	38
Canada	1891	4,000	2,911	1,145
Newfoundland	1884	19	40	..
Jamaica	1889	112	15	..
Falkland Islands	1889	6	589	..
Australasia	1891	10,953	116,037	1,118
Fiji .....	..	7	7	2

* This includes goats.

CAN THE EMPIRE FEED ITS PEOPLE?

The leading industry of Australasia, wool production, is well exemplified in the table below, in which the actual produce and declared value is shown :—

WOOL PRODUCED IN AUSTRALASIA, 1889. "000" OMITTED.

	Quantity. lbs.	Value. £
Victoria	56,954	2,449
New South Wales	258,233	10,501
Queensland.....	59,228	2,680
South Australia.....	39,352	1,354
Western Australia	9,501	395
Tasmania	6,383	292
New Zealand.....	105,779	4,213
Total.....	535,435,633	21,887,574

This total yield is considerably more than one-quarter the total estimated yield of the world. Australasia stands at the head of the list, and it is not improbable that as her flocks develop more and more she will produce one-half the wool grown in the recognised wool-growing countries, the chief of which are shown in the following list :—

ESTIMATED PRODUCTION OF WOOL IN VARIOUS COUNTRIES.
"000" OMITTED.

Year.	lbs.	Year.	lbs.
Australasia.....	1889 .. 535,436	India	1881 .. 21,400
Russia.....	1878 .. 390,548	Italy.....	1874 .. 21,378
Argentina.....	1882 .. 244,666	Asiatic Turkey & Persia ..	.. 13,224
United States.....	1882 .. 233,073	Natal	1881 .. 12,496
United Kingdom	1882 .. 127,942	Austria	1881 .. 10,909
France	1879 .. 90,319	Portugal.....	.. 10,358
Spain	1878 .. 66,120	Belgium.....	1865 .. 4,408
Germany	1881 .. 54,879	Canada	1881 .. 3,570
Cape Colony.....	1881 .. 42,427	Sweden	1870 .. 3,306
Uruguay.....	1880 .. 41,369	Other countries.....	.. 96,976
Hungary.....	1880 .. 35,682		

FOOD CONSUMPTION.

IN order that a clear idea may be obtained and any necessary calculation made showing the consumption of food under any given head, we next give a table showing the consumption of twelve of the most necessary foods per head in each colony :—

CAN THE EMPIRE FEED ITS PEOPLE?

CONSUMPTION OF FOODS, 1890.

Article.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Grain—								
Wheat.....	390	300	246	390	390	362	454	334
Rice and Oatmeal....	18.9	22.2	22.5	13.8	32.4	16.2	15.9	18.0
Potatoes.....	182	311	242	210	102	509	472	288
Sugar.....	94.8	105	102	96.9	114	96.3	88.7	95.8
Tea.....	6.8	7.3	8.5	5.6	10.7	7.2	6.0	7.0
Coffee.....	8.7	17.8	11.2	20.8	21.0	12.2	8.1	13.0
Cheese.....	4.3	..	..	5.2	..	..	4.5	4.5
Butter.....	16.6	..	..	16.0	..	..	16.0	16.0
Salt.....	33.7	22.0	46.3	33.0	19.0	36.1	29.6	33.0
Meat—								
Beef.....	176	155	280	..	..	60	90	..
Mutton.....	85	98	90	..	..	150	110	..
Pork and Bacon.....	10	12	..	..	..	..	..	..

For comparison we add Mulhall's calculations relating to the chief civilised countries of the world, remarking, at the same time, that in some instances they are below the mark, not having been compiled at a very recent date:—

QUANTITY OF FOOD ANNUALLY CONSUMED IN PRINCIPAL COUNTRIES.

Country.	Pounds per Inhabitant.						Tea and Coffee. Ounces.	Daily Energy Foot. Tons.
	Corn.	Meat.	Sugar.	Butter and Cheese.	Pota- toes.	Salt.		
United Kingdom.....	378	..	75	28½	380	40	91	3.739
France.....	540	77	20	8	570	20	66	3.993
Germany.....	550	64	18	8	1,020	17	78	4.708
Russia.....	635	51	11	5	180	19	6	3.532
Austria.....	460	61	18	7	560	14	28	3.502
Italy.....	400	26	8	4	50	18	20	2.152
Spain.....	480	71	6	3	20	17	6	2.597
Portugal.....	500	49	12	3	40	17	18	2.659
Sweden.....	560	62	22	11	500	28	112	4.012
Norway.....	440	78	13	14	500	40	144	3.627
Denmark.....	560	64	22	22	410	25	140	4.071
Holland.....	560	57	35	15	820	20	240	4.635
Belgium.....	590	65	27	15	1,050	..	142	5.034
Switzerland.....	440	62	26	11	140	..	110	2.766
Roumania.....	400	82	4	9	80	..	8	2.414
Servia.....	400	84	4	9	80	..	8	2.422
United States.....	370	150	53	20	170	39	162	3.415
Canada.....	400	90	45	22	600	40	72	4.013
New South Wales.....	409	271	95	21	182	34	117	4.337

CAN THE EMPIRE FEED ITS PEOPLE?

The cost of food and drink, with the ratio of this cost to the earnings, is next given, together with the number of days' work necessary to provide such food. It is admittedly expensive to live in the colonies, but the colonist obtains higher wages, and he is therefore able to pay higher prices for what he requires without feeling the pinch so keenly as in the older countries, where, if food is cheap, wages are low:—

ANNUAL COST OF FOOD AND BEVERAGES.

Country.	Average Annual Cost of Food and Beverage.			Ratio of Cost of Food to Earnings.	Days' Earnings Equal to Annual Cost of Food.
	£	s.	d.	Per cent.	Days.
United Kingdom	14	4	9	42·2	127
France	12	4	5	44·0	132
Germany	10	18	5	49·1	148
Russia	5	19	7	52·0	156
Austria	7	17	4	50·8	152
Italy	6	4	10	51·2	153
Spain	8	9	0	51·2	154
Portugal	7	3	0	59·1	177
Sweden	9	18	11	45·2	136
Norway	9	15	0	47·6	143
Denmark	11	14	0	36·0	108
Holland	10	8	0	46·0	138
Belgium	12	3	1	43·4	130
Switzerland	8	11	7	45·2	135
United States	9	17	7	25·3	76
Canada	8	9	0	32·5	98
Australasia (New South Wales) ..	18	14	9	32·8	98

NEW SOUTH WALES.

THIS important colony, the great centre and stronghold of the sheep industry of Australia, is third in size and second in population among the colonies of the Continent. It receives and despatches more vessels, and, with the exception of Victoria, has a larger mileage of railways. At present New South Wales has no claim to eminence in the production of wheat, or even of barley or oats, cattle or swine; but it is by far the largest producer of maize, and, with Queensland, may some day render signal service to the mother country in the supply of this necessary food. The total area, excluding rivers and lakes, is 195,882,150 acres, or 306,066 square miles, so that it is about two and a half times as large as the United Kingdom. Up to a recent date the land held for cultivation reached 36,750,000 acres, in addition to 143,000,000 acres held under the pastoral occupation laws. The land actually under cultivation

CAN THE EMPIRE FEED ITS PEOPLE?

amounted in 1890 to 1,241,419 acres, including 388,715 acres sown with artificial grasses. The cultivated land, therefore, is only equal to 1.01 acres per inhabitant. Again, estimated upon the basis of alienated rural lands, the actual proportion cultivated in the colony is only 2.07 per cent.

Coming to the question of climate, the mean temperature of Sydney, which is midway between the extreme north and south, is 63°. The mean temperature of summer is 70.7°, and of winter 54.5°, the highest and lowest readings of the thermometer in the shade being 36.8° and 106.9°, whereas the mean annual rainfall is 49.2in. We may take it that these figures fairly represent the average temperature of the coast districts, although the rainfall varies from 34in. to 36in. In the tablelands or mountainous districts the mean temperature varies between 50° and 60°, reaching a higher figure in summer and falling lower in winter, whereas the rainfall varies between 19in. and 16in. In the western district the mean temperature is nearer 60° Fahr., the range being equally wide, and the rainfall between 13in. and 26in.

The soil and climate of the colony are suitable to the production of every agricultural crop common in temperate and sub-tropical countries, and it has been said on authority that one-sixth of the entire area is suitable to the cultivation of wheat. The difficulties with which the farmer has to contend, however, render it doubtful whether wheat could be grown with profit upon anything like this area. Dry seasons and rust are his enemies, and against these he contends in vain; even the completion of proposed irrigation works upon a very large scale, dealing with 5,000,000 acres, would not make any very sensible reduction in the huge acreage which is at the disposal of the colony, and which man will ultimately cover with luxuriant crops. Up to the present time the lack of means of transport has stood in the way of development, but a considerable acreage of land formerly held on lease for pastoral purposes having been placed at the disposal of the farmer upon easy terms, and the railway question being now before Parliament, we may anticipate that at no distant date greater progress will be made. In 1890 the arrivals in New South Wales numbered 70,900, against 45,200 departures, showing a considerably larger balance than in any other colony. If this figure increases, a fair proportion of farmers continuing to take up land, there cannot be much doubt as to the result. At the present time the freight in Australia—100 per cent higher than in America—precludes the possibility of competing with that country even if farmers could produce at British prices. Wheat cultivation is, however, extremely simple, and the rotation economical. The land is often left fallow after the wheat harvest, producing in this state a crop of indigenous grass, which is eaten off

CAN THE EMPIRE FEED ITS PEOPLE?

by sheep, being then ready for wheat again. Maize or potatoes are also taken in between two wheat crops. Many farmers merely broadcast and plough in their wheat, in this way obtaining larger crops than by the adoption of any other plan. An able writer well acquainted with the colony has said that in one district there are vast plains, with unlimited supplies of water at a reasonable depth, which are now in the hands of the squatter, who keeps his one sheep per acre, paying the Government about 2d. per acre, and receiving from the Government subsidies for the rabbits he kills. This land, he adds, would grow heavy crops of wheat if it could only be obtained.

At the present time New South Wales must be looked upon as a pastoral country, crop cultivation being altogether second to stock production, in spite of the fact that the soil is to a large extent suitable for growing all kinds of agricultural crops. It must not be forgotten that New South Wales is able to supply alike necessary foods and articles of consumption, such as tobacco, sugar, and wine, which are more properly described as luxuries, necessary though they be to the people of Great Britain. Thus we have the following figures representing these three crops:—

	Acres.		Tons.		Value.
Sugar Cane.....	*20,446	....	277,252	....	£210,249
			cwt.		
Tobacco	1,148	....	10,592	....	19,772
			galls.		
Grapes	†8,044	....	848,885	....	147,382

In 1867 the wheat area was largely increased, remaining stationary for twelve years, when further increases took place from year to year, until in the season 1887–88 it had reached 389,390 acres, and in 1889–90, 419,758 acres, when the largest crop—15·05 bushels per acre—was harvested. The average yield from the passing of the first Crown Lands Act to 1891 was 13·22 bushels, the best yield giving an average of 17·37, and the worst 4·75 bushels. The remarkable nature of the climate is shown by the fact that while in 1889 the crop was only 1,450,503 bushels, in the following year it reached 6,570,335 bushels. Fortunately this state of affairs has not occurred often, a great failure having only occurred once during the past twenty years. On the north coast the average yield of wheat varied between 13·9 bushels and 22·2 bushels from 1882 to 1890, giving a mean yield of 19·2 bushels; while on the south coast the lowest yield was 14·6 bushels, the highest 23·0 bushels, and the increase during the same years 19·7 bushels. It appears to be accepted as a

* Including 12,000 acres not cut.

† Including 2,076 acres as yet unproductive and fruit for table use.

CAN THE EMPIRE FEED ITS PEOPLE?

general rule that the land best adapted to the cultivation of wheat is on the higher tablelands, the yield decreasing "in an almost constant ratio as a descent is made towards the plains." Although less than either Tasmania or New Zealand, the average wheat yield of New South Wales is greater than that of any other of the Australasian colonies. At the present time New South Wales does not produce sufficient wheat for its own consumption, which is about 6·4 bushels per head of the population. It was estimated that for 1892 no less than 7,700,000 bushels were required, which, omitting seed, would necessitate the cultivation of 582,500 acres upon the basis of the average yield of the past thirty years. What, however, is this compared with the vast area of land suitable for wheat growing in the colony? To-day, then, New South Wales, far from being in a position to export wheat, to us is an importing colony, but sufficient has been stated to show that we must not estimate her capabilities by her actions. We ought perhaps to mention that a large acreage of wheat is grown for cattle, being cut green and converted into hay.

The acreage (191,000 in 1891) is sufficient to show the importance of New South Wales as a maize-growing country, while the average yield is such that we are bound to believe that the crop is a success. The mean average yield in the various districts of the colony during the past seven years varies between 17·6 bushels and 38·5 bushels, the yield in only four out of fourteen districts being under 25 bushels. The area cultivated has more than trebled in the past thirty years, having rapidly risen since 1886, the mean since 1862 being 31·6 bushels. Strange to say, although more maize is grown than is required for home use, the demand outside the colony is not considerable, and that confined to southern colonies, which are easily satisfied. The price in Sydney, 2s. a bushel, is not considered remunerative; but if the American grower can land maize on English shores at from 18s. to 20s. a quarter, as he has constantly done, there would appear to be no reason why the Australian grower cannot do equally well, allowing for the extra charges for freight.

The oat crop is not of great importance, for it fluctuates with the price, and to some extent depends upon the value of maize. The area is small, and the average yield varies between 13·8 bushels in 1889 and 25·1 bushels in 1887. The production does not keep pace with the consumption, and a large quantity is therefore imported, chiefly from New Zealand—indeed the acreage would have to be increased to five times its extent before the colony would be self-supplying. A considerably larger area of land is occupied in the production of oats for hay than for seed, and this area also fluctuates.

CAN THE EMPIRE FEED ITS PEOPLE?

Taking the barley crop next, we are compelled to notice the smallness of the yield, as well as of the area cultivated. The acreage is hardly worthy of mention, and it does not increase, owing, it is believed, to the uncertainty of the demand in the colony. The yield in 1890-1 was 16·48 bushels per acre, but the average of the previous ten years was 19·79 bushels, infinitely less than the yield to which we are accustomed in Great Britain. It is worthy of notice that whereas the production of grain in the colony is 9 bushels per head of the population, the consumption is 13·5. To quote the very able Government statistician, Mr. Coghlan:—

There is no apparent reason why the local production of grain should not equal the local demand; on the contrary, the resources of the colony are such that under normal conditions the supply of grain should largely exceed the requirements, and an increasing excess of production become yearly available for export either as grain or meat.

It is claimed that New South Wales yields a better cereal average than the United States, Italy, or Hungary, whilst it is in some respects almost on a level with Germany and France. Further, the authority above quoted says that the area adapted for cereals is very considerable, and that with better knowledge of the soil and some well-devised means of water storage, there should be *practically no limit to the production of grain*.

In 1891 there was an increase of 171,000 acres of land under artificial grasses. This fact is worthy of note, for a continuation of this system, with a corresponding rate of increase, would quickly develop cattle breeding and the dairy industry. The sowing of permanent grasses is also extending, especially in the north coastal districts, where dairy farming is carried on.

Reference has already been made to certain luxuries which are among our principal articles of import. Let us see what is being done with them in New South Wales. During the past ten years the tobacco crop has fluctuated between 9,000 cwt. (1885) and 55,000 cwt. (1889), this fluctuation chiefly depending on the acreage. The chief cause assigned is that the quality of the leaf is inferior, and it is believed that this is owing to the lack of skill on the part of the growers, who have not the requisite knowledge of the management of the plant and the leaf. The country is well adapted to the habits of the tobacco plant, however, and there is little reason to doubt that if the competition of the older tobacco-producing countries was less severe colonial growers would be induced to make a study of the business with a view to the conduct of an export trade. Portions of the north of the colony are well adapted to the cultivation of the sugar cane. The area given in the official returns includes that of uncut cane, the crop not being an annual one. The heaviest crop yet grown was cut in 1890.

CAN THE EMPIRE FEED ITS PEOPLE?

277,000 tons from 20,400 acres—although this was less per acre than in 1887, when an almost equally large crop was taken from 15,000 acres. The cultivation of the cane is not so general with the small farmers as it was, in consequence of the low price of sugar, but with average crops the returns amount to from £7. 10s. to £10 per acre planted. In 1890 the yield of cane was $33\frac{1}{4}$ tons per acre, an exceptional result, the value being from 11s. to 13s. per ton, which yields about 9 per cent of sugar. The sugar produced in the colony is equal to the best samples of the leading sugar-growing countries.

At this moment Australia is but an infant as a wine producer with its three million gallons, but the industry is established and time will do the rest. Apart from the intrinsic value of the wine and its acknowledged purity, it cannot hope to rival the great wine-growing countries of Europe, in spite of the frauds which are systematically practised. Since 1882 the area for wine making has regularly if slowly increased, until in 1891 the production amounted to 842,000 gallons, or 216 gallons per acre, slightly more than the mean yield of the past thirty years.

A few remarks will now be necessary in connection with the live stock of the colony intended for food. Sheep have been increasing with great regularity until in 1890 they reached 55,986,000, showing an annual increase since 1860 of 7·7 per cent, although the increase diminishes per cent in the later years. In other words, the more numerous the sheep become the smaller is the rate of increase. We need not stop to inquire why the increase is latterly so much smaller, but drought may be mentioned as the giant destroyer. In 1890 nearly 3,000,000 sheep were exported, although some 598,000 were imported. With improvements in the water system, especially in its preservation in the sheep-growing districts, with the growth of artificial grasses, and grasses such as lucerne, which are drought resisting, will come a higher rate of increase. At this moment, however, most of the country is in its primitive condition, and ill adapted for carrying a heavy stock in an abnormally dry season.

It is probable that with better methods of transit sheep breeding will remain stationary, if it does not decline somewhat, for cereals are certain to absorb more attention, as in the case of Victoria. Sheep will nevertheless remain a staple product, and the colony the centre of the sheep-breeding industry. It is not unlikely that, with the development of Western Australia, a portion of that colony will follow suit, resembling as it does in many respects the sister colony.

It is a remarkable fact that for many years there has been a gradual diminution in the number of cattle in New South Wales. In 1875 there were 3,134,000; in 1885 this had fallen to less than

CAN THE EMPIRE FEED ITS PEOPLE?

one-half, 1,317,000, since which time there has been a gradual increase until in 1890, when 1,909,000 was the figure reached. The farmers of the colony are again showing faith in cattle breeding, which, remembering the severe losses to which they have been subjected through failures of grass and water, is all the more creditable to their energy as well as their judgment. We may take it, then, that were provision well made to meet the contingency of a dry season, by the aid of such crops as lucerne and green maize, and water provision, cattle breeding would grow apace, so that with provision for transit to the seaboard a great meat export trade might be built up; that it will be, sooner or later, we entertain little doubt. Already a large number of cattle are brought over the border from Queensland, and fattened in New South Wales.

In 1891 the number of cows kept for dairy purposes was 333,023, the milk yielded having been 119,888,000 gallons, or about 360 gallons per cow. From this milk it is estimated that 4,796,507lbs. of cheese and 18,534,130lbs. of butter were made. The factory system is largely developed, the total number in existence being 287, employing 2,169 hands, and being valued at nearly £2,250,000. Nevertheless, there is a considerable quantity of butter and cheese imported, which detracts to a serious extent from the exports; indeed, until 1890 the imports of butter and cheese alike were very considerably greater than the exports, as the following figures show:—

Year.	BUTTER.		CHEESE.	
	Imported.	Exported.	Imported.	Exported.
	lbs.	lbs.	lbs.	lbs.
1889.....	1,904,737	662,489	955,494	300,750
1890.....	838,703	1,120,044	212,801	288,902

In connection with the dairy there is a considerable industry in the manufacture of bacon, the number of swine in the colony increasing year by year. The efforts which are being made in various public improvements cannot fail to bear fruit. There are many thousands of dams, tanks, and other watering places, with a capacity of 5,000,000 gallons downwards. These and fencing improvements on pastoral estates have been valued by the public authorities at nearly £73,000,000.

When we consider the enormous extent of the country, and the fact that the estimated area of land unfit for pastoral or agricultural occupation is only 5,000,000 acres, we are in a position to form some idea of the great producing power which the colony possesses and the future which is before it.

CAN THE EMPIRE FEED ITS PEOPLE?

VICTORIA.

THE land cultivated in Victoria was in 1890 no less than 2,652,768 acres, a portion of which produced 12,751,295 bushels of wheat, just about double the yield of 1861, or nearly 50 per cent more than that produced in 1891. Railway communication has increased by a thousand miles in five years, and it is likely to spread with still greater rapidity in the near future. The elevation above sea level varies from 37 feet at Portland to 701 feet at Sandhurst, whereas the rainfall taken at several stations varied between 21·70 inches and 47·63 inches falling on from 101 to 194 days. The maximum temperature at the same stations varied between 84° and 104° in the shade, and the minimum from 27° to 42°. It is a strange fact that while the exports from Victoria have gradually decreased the imports have increased largely and rapidly. The principal imports are metal, cotton, coal, spirits, and manufactured goods, all of which can be supplied from Great Britain, and tea, sugar, tobacco, timber, and wool, which can be supplied in chief part by sister colonies.

Of the crown lands of Victoria no less than 22,359,000 acres are either granted, sold, or selected, and there is therefore a residue neither alienated nor in process of alienation equivalent to 33,886,000 acres. This area, however, includes forests, water, roads, and reserves for public purposes amounting to over 7,500,000 acres, and 6,500,000 acres leased for a term of years, so that the actual acreage available for settlement is (Dec., 1890) 7,990,000 acres plus 11,500,000 acres known as the Mallee country, which is occupied for pastoral purposes but which is now thrown open to selection. The available and leased land will doubtless all come under cultivation or occupation under better conditions ultimately. Of the land available for settlement (7,990,000 acres), 2,142,000 acres are pastoral and 4,596,000 are agricultural and grazing.

We have already referred to the average crops of grain in the various Australasian colonies during the past few years, but it may be mentioned that upon the average of eighteen years, 1873-90, the leading crops of the colonies have been as follows:—

MEAN YIELD OF CHIEF CROPS DURING SEVENTEEN YEARS (1873-90).

Colony.	Wheat.	Barley.	Oats.	Potatoes.	Hay.
	Bushels.	Bushels.	Bushels.	Tons.	Tons.
New South Wales	14·14	19·71	20·49	2·81	1·34
Victoria	11·55	19·83	21·05	3·46	1·22
Queensland	10·97	20·47	13·88	2·86	1·59
South Australia	7·61	12·59	12·92	3·41	1·11
Western Australia	11·47	14·88	16·53	2·83	1·12
Tasmania	18·05	23·62	25·58	3·74	1·25
New Zealand	25·88	27·76	31·83	5·15	1·32

CAN THE EMPIRE FEED ITS PEOPLE?

For wheat and barley Victoria is only fourth in yield, but for oats the colony comes third, four bad years having spoiled her average, the same years having been bad barley years also. As a potato-growing country Victoria comes next to the islands of New Zealand and Tasmania with a consistently respectable yield, one indeed which augurs well for the farmers when high cultivation is undertaken. The hay crop appears to have been generally up to the average during the whole of the years under consideration, 1889 only having been a great failure, as it was also in New South Wales. It should be mentioned that the average for Queensland is based on only twelve years, there being no data prior to 1878, and that in the four years 1886-9 no statistics were collected.

The Victorian wheat yield has varied enormously ever since it has been recorded. A yield of 733,000 bushels in 1852 fell to 250,000 bushels in 1855, rising the very next year to 1,148,000 bushels, since which it has never been below 1,000,000 bushels. It went into eight figures in 1884 with a yield of 15,500,000 bushels, which has never since been equalled, and only in 1889 this was reduced to 8,500,000 bushels. The net exports, 8,250,000 bushels in 1884, fell to 1,333,000 bushels in 1889. It is a curious fact that whereas the colony has exported 15,000,000 bushels more wheat than it imported the value of the imports was £2,250,000 greater than the exports between 1837 and 1890.

One quarter of the land occupied is under crops other than those which have been referred to. There is, for example, a considerable acreage devoted to maize, hops, vines, and vegetables. Among crops unknown in our climate the following are cultivated: tobacco, 618 acres, at one time 2,000 acres; oranges and lemons, 100 acres; and olives, 15 acres.

The dairy produce of Victoria is improving, and there is likely to be a good export trade in the near future. In 1889 it was found that 31,775 cows yielded a daily average of 42,285 gallons of milk, equal to 15,500,000 gallons per annum, from which some 2,200,000lbs. of butter and 1,790,000lbs. of cheese were made. According to the Government dairy expert, Mr. D. Wilson, the following represents the value of the dairy produce in 1890:—

Milk consumed at $\frac{3}{4}$ pint per head per diem, 39,283,600	
gallons, at 8d.....	£1,309,453
Butter made from 87,437,200 gallons of milk, at $2\frac{1}{2}$ gallons	
to 1lb. of butter, = 34,974,880lbs., at 8d.....	1,165,829
Cheese made from 17,487,400 gallons of milk, at 1lb. per	
gallon of milk, = 17,487,400lbs., at 6d.....	437,185
Total.....	£2,912,467

CAN THE EMPIRE FEED ITS PEOPLE?

In making butter and cheese it is estimated that five-sixths of the milk remaining after human consumption has been accounted for is made into butter and one-sixth into cheese.

The increase in cattle is shown by the following figures, which also separate dairy cows from cattle of other kinds :—

	Cows.		Other Cattle.		Total.
April 3, 1881	329,198	....	957,069	....	1,286,267
April 5, 1891	395,091	....	1,387,887	....	1,782,978
Increase.....	65,893		430,818		496,711

The increase in sheep and pigs between the above dates is also considerable.

In 1881 there were sheep	10,360,285
In 1891 " "	12,692,843
Increase.....	2,332,558
In 1881 pigs numbered	241,936
In 1891 " "	282,457
Increase.....	40,521

During the same period poultry have largely increased. There are 42,000 instead of 97,000 owners of poultry, 3,476,750 fowls instead of 2,328,500, 303,520 ducks instead of 181,690, and 216,000 turkeys in place of 153,000. Guinea fowls also show a large increase, but geese a decrease.

The annual value of the pastoral produce of Victoria is considerable—no less than £10,000,000 according to Australian prices, but at British prices it is quite possible that £20,000,000 would be nearer the mark, as we shall see by a study of the following figures, and a comparison with similarly detailed figures connected with British produce :—

TOTAL VALUE OF PASTORAL PRODUCE, 1890-1.—VICTORIA.

"000" OMITTED.

Milk, butter, and cheese from 395,091 cows, at £8. 10s.....	£3,358
Estimated value of stock produced in 1890, 359,091 cattle :—	
263,394 at £8 "	2,304
131,697 calves at 30s.)	
3,184,036 sheep at 7s. 6d.	1,194
84,737 pigs at 50s.	211
21,823 horses at £8	174
Excess of wool exports over imports	2,743
Estimated value of wool used, 1,780,859lbs. at 1s. 4d.....	118
Total	£10,105,498

CAN THE EMPIRE FEED ITS PEOPLE?

The colonies exported in 1890-91 no less than 1,618,052 bales of wool, 83·2 per cent of which went to London, 14·9 per cent to the European continent, and 1·8 per cent to America. The wool produced by Victoria amounted to 56,954,721lbs. (1889), and that exported to 419,989 bales.

At the present time the colony of Victoria contains 100 per cent more horses, cattle, and pigs, in accordance with its size, than any other colony—in addition to taking second place in the same connection with sheep—and yet it has room for more, many more, as the remarks we have already made show. It is, however, far behind Queensland in the number of cattle it possesses, and still further behind New South Wales as a sheep-owning colony. It produces far more wheat, oats, and barley, and other cereals, if we except maize, in which it takes third place, than any other Australian colony, but it is eclipsed by New Zealand as an oat-growing country. Its maize yield per acre is much the highest of any (55·43 bushels), and as a wine producer it takes the first rank, growing more than all the other colonies put together, 2,008,493 gallons in 1890-1 out of 3,997,605 gallons, the total production of the Australian continent.

QUEENSLAND.

QUEENSLAND is more than five times larger than the United Kingdom, possessing an area of 427,838,000 acres, while its population is only 393,718, or less than that of a first-rate provincial town in England. How is even the choicest land in such a large country to be tilled under such circumstances? How is the country to be developed in order that it may contribute to the requirements of the empire of which it forms so conspicuous a portion? Queensland has a warm and yet variable climate, ranging from a mean of 68° at Brisbane to fierce tropical heat in the north of the colony, where the rainfall is sometimes very severe.

The imports fluctuate between £4,000,000 and £6,000,000, the United Kingdom and the other Australasian colonies absorbing the great portion, and dividing this pretty equally between them. The exports have continued to increase year by year from £3,500,000 in 1881 to £8,500,000 in 1890, £6,000,000 coming from the other Australasian colonies, £2,300,000 from Great Britain, and the bulk of the balance from other British possessions. There is very little re-export trade. The leading articles of import are flour, tea, beer, spirits, tobacco, and manufactured goods, the two first-named

CAN THE EMPIRE FEED ITS PEOPLE?

coming from outside the United Kingdom. The principal articles of export are—omitting gold—tin and silver, wool, sugar, tallow, meat, and hides. We imported the following in 1891:—

IMPORTS FROM QUEENSLAND, 1891.

	Value.
Wool	£2,016,277
Mutton	129,318
Tallow	113,330
Beef (fresh)	62,522
Other meats	56,133
Hides	26,163

The above figures suggest the pastoral nature of the country, but, as we shall see, there are other articles of produce, some of which can be largely increased.

Let us first deal with the live stock of the colony, from which the above items are obtained. The following figures give the number of head, showing the gradual increase:—

LIVE STOCK OF QUEENSLAND. "000" OMITTED.

	Sheep.		Cattle.		Horses.		Pigs.
1885	8,994	....	4,162	....	..	....	..
1886	9,690	....	4,071	....	278	....	61
1887	12,926	....	4,473	....	305	....	73
1888	13,444	....	4,654	....	324	....	68
1889	14,470	....	4,872	....	352	....	80
1890	18,007	....	5,558	....	365	....	96

Sheep raising is at present precarious, in consequence of the excessive droughts with which the colony is visited; but it is hoped that the successes in obtaining water from artesian wells will be repeated, in which case the industry may be secured and largely increased. As a cattle-breeding country Queensland takes the first place among the great colonies of the south, producing to a large extent; but it is not a dairying country.

Queensland has a much smaller acreage under crop than either of the other colonies, West Australia excepted, but even this colony has a larger acreage of wheat. This small area of grain accounts for the imports of wheat, flour, maize, oats, and malt, which exceed £500,000, wheat forming by far the principal item. The acreage under crop has varied between 126,000 in 1881 and 224,000 in 1890. Maize is the chief crop, reaching 99,000 acres, which, however, is not extensive when we consider the size of the colony. The reason

CAN THE EMPIRE FEED ITS PEOPLE?

why arable cultivation is so backward is that the climate is too severe for European or white labour in these districts, where much more might be done on account of the nature of the soil and the rainfall. The following figures furnish details of the area and production of the leading crops :—

MAIZE, 1886-90.

	Area. Acres.		Yield. Bushels.		Yield per Acre. Bushels.
1886.....	75,566	....	1,709,673	....	22·62
1887.....	73,139	....	1,631,890	....	22·31
1888.....	85,966	....	2,181,681	....	25·38
1889.....	97,098	....	1,743,051	....	17·84
1890.....	99,400	....	2,373,803	....	23·88

WHEAT, 1886-90.

1886.....	6,787	....	21,221	....	3·13
1887.....	8,248	....	182,308	....	22·10
1888.....	9,305	....	8,263	....	·89
1889.....	8,457	....	134,335	....	15·88
1890.....	10,390	....	207,990	....	20·02

The yield in 1888 was reduced to the above figure in consequence of 8,806 acres being unproductive. Wheat, oats, and lucerne are all grown for forage, the last-named being much the largest crop and ranging from 20,000 to 33,000 acres in extent.

Sugar can be grown upon almost every part of the east coast, but the labour difficulty again stands in the way of its development. On some of the northern plantations South Sea Islanders are employed, but prices are so low that the industry is not extended as it might be. In 1890 there were nearly 101 mills and four refineries, but since that time the uncertainty of realising a profit has caused a slight diminution both in the mills and the acreage.

SUGAR CANE, 1886-90.

	Area. Acres.		Cane Crushed. Acres.		Sugar Made. Tons.
1886	54,010	....	34,657	....	58,545
1887	51,815	....	36,806	....	60,806
1888	47,340	....	32,375	....	34,659
1889	49,741	....	29,438	....	40,169
1890	50,922	....	40,208	....	68,924

Queensland sugar is chiefly exported to adjoining colonies, New

CAN THE EMPIRE FEED ITS PEOPLE?

South Wales taking the bulk. In connection with the sugar industry molasses was made to the extent of 1,500,000 gallons, and rum 177,000 gallons.

As might be supposed in such a climate, fruit, and the vine in particular, is largely cultivated.

THE VINE, 1886-90.

	For Wine.	For Table.	Unprod'ctive	Wine.	Grapes for Table.
				Gallons.	lbs.
1886	592	573	352	147,410	1,467,005
1887	611	651	396	118,672	1,765,998
1888	600	832	271	144,239	1,842,110
1889	655	791	317	164,626	1,967,667
1890	690	940	351	189,274	2,404,863

With the aid of coloured labour, wine, like sugar, might be produced to a much greater extent.

Oranges, pines, and bananas are produced in large quantities; thus, in 1890 there were 1,234 acres of oranges, upon which nearly 913,000 dozens were grown; 721 acres of pines, producing 263,000 dozens; and 3,890 acres of bananas, producing 22,000,000 dozens. Green fruit was exported to the value of £37,000 in the same year, showing a large and regular increase upon previous years. The acreage of tobacco and arrowroot is small, and cotton, which was at one time a considerable crop, is now insignificant.

There is practically an intercolonial exchange in flour and sugar, Queensland importing the former from and exporting the latter to other Australian colonies. In 1890 the colony imported 41,000 tons of flour, and exported 813,000 cwt. of sugar. Hides and skins exported amounted in value to £116,000, and wool to £2,500,000.

In this colony land can be obtained upon very easy terms. With personal residence farms up to 160 acres can be purchased at 2s. 6d. per acre, and without residence up to 1,280 acres at 15s., or on 50 years' lease at 3d. per acre. Grazing land is leased at $\frac{3}{4}$ d. per acre. Under purchase the payments may be spread over a term of years. At the present time the land alienated is 10,258,000 acres, the area unalienated being no less than 415,346,000 acres.

We may take it for granted that Queensland has the capacity to feed millions more than any population it is likely to possess for generations on meat (mutton and beef), that it could contribute largely to outside requirements in sugar and wine, and that its wool, hide, and skin trade is likely to continue to be of great service to the empire in its home and foreign manufacturing trade.

CAN THE EMPIRE FEED ITS PEOPLE?

SOUTH AUSTRALIA.

THIS colony comprises an area of no less than 578,000,000 acres, of which 335,000,000 acres belong to what is known as the northern territory. Of the remaining 243,000,000 acres, 45,000,000 acres comprise the counties within which the agricultural community is practically situated. Indeed, as they include 8,531,000 acres of land out of 9,010,000 alienated, they monopolise up to the present nearly all the cultivated area. The balance of 198,000,000 acres includes 100,000,000 acres which are used for grazing sheep and cattle, leaving 98,000,000 acres for future lessees to take up. The climate of South Australia is naturally variable, extending, as the country does, through 25 degrees of latitude; but the climate of Adelaide resembles that of the south of Italy, and although at times the heat is very great, it does not last long. The rainfall over the chief agricultural districts has averaged 21·64 inches during the five years 1886-90, June heading the list with 3 inches, with February at the bottom with ·66 inches. The rainfall in different years, however, has been very variable; for example, in 1888 it was only 15·13 inches, whereas in 1889 it reached 30·22 inches. The population has advanced very slowly indeed. In 1884 it was 312,781, and in 1890 it had only reached 320,431.

The actual area of cultivated land is 2,649,098 acres, less by 215,779 acres than in 1889. This was owing to a smaller acreage of wheat and fallow, the low price of wheat, combined with bad seasons, inducing the farmers to leave the land for sheep breeding. In the official report it is stated that farmers preferred to devote greater attention to sheep, the dairy, wine, and fruit. The following figures give the cultivated acreage and number of sheep in 1889-90:—

CULTIVATED ACREAGE AND SHEEP, 1889-90.

	1889.		1890.
Land cultivated.....Acres	2,864,877	....	2,649,098
Sheep	No. 6,386,617	....	7,004,642

In 1889 the wheat area was 1,673,573 acres, against 1,842,961 acres in the previous year, a reduction of some 9 per cent. The yield was, however, only 9,399,389 bushels, 35 per cent less than in the previous year, the yield having been no more than 5 bushels, 37lbs., against 7 bushels, 55lbs. in the previous year. The barley acreage was only 14,472, or 5,207 acres less than the previous year, the yield averaging 12 bushels, 7lbs., against 12 bushels, 27lbs. The consequence of such a poor return was that large quantities of

CAN THE EMPIRE FEED ITS PEOPLE?

barley and malt were imported. Oats were also largely imported in spite of an increase in the area, 12,475 acres yielding 116,229 bushels, as compared with 10,297 acres and 131,449 bushels in 1889. There were also 4,358 acres of peas, averaging 14 bushels, 42lbs. per acre. Lucerne was grown to the extent of 4,700 acres; and potatoes occupied an area of 6,626 acres, yielding 23,963 tons, or 73 cwt. per acre, in spite of which potatoes were imported. There were also small areas of maize, sorghum, rape, chicory, rye, melons, and roots.

South Australia is suitable for the cultivation of the vine, of oranges, lemons, figs, almonds, and olives. The fruit and vegetable industry is represented by 15,362 acres, an increase of 4,580 acres in five years. There are 134,000 almond trees, 59,000 olives, and 56,300 oranges producing 44,760 cases of fruit. The olive industry resulted in a production of 6,838 gallons of oil, while the production of almonds reached 3,311 cwt. In every case the increase is considerable. Fresh and preserved fruits were largely exported. The vine is to become an important industry in the future, for a large area is being planted under conditions which practically ensure success. The area nine years ago was 4,202 acres, in 1891 it had reached 9,535 acres. A fair average return in the vineyards is said to be two tons of wine grapes or three to five tons of raisin grapes per acre. In addition to the wine made, a large quantity of grapes were sold and converted into raisins.

WINE AND SPIRITS MADE, 1886-91.

	Wine. Gallons.		Spirits. Gallons.
1886	550,228	....	58,108
1887	510,000	....	59,533
1888	707,980	....	38,259
1889	715,220	....	43,882
1890	1,052,086	....	63,212
1891	1,048,170	....	....

The wine exported amounted to 221,885 gallons, against 83,309 in 1886. The quantity of wheat and flour exported has not increased during the past ten years; for example:—

	Wheat. Quarters.		Flour. Tons.
1881	205,576	....	72,375
1885	1,123,748	....	68,546
	Centals.		Centals.
1890	4,665,483	....	1,332,684

The value in 1890 was under £2,000,000, whereas in 1884, 1885, and 1888 it considerably exceeded this amount. The bulk of the wheat comes to this country.

CAN THE EMPIRE FEED ITS PEOPLE?

IMPORTS OF BARLEY AND OATS, 1889-90.

	Barley. Bushels.		Oats. Centals.
1888	59,120	....	44,954
1889	27,829	....	44,563
1890	28,636	....	61,785

LIVE STOCK.

THE live stock of the colony has systematically increased for many years past, and both cattle and sheep are very numerous.

NUMBER OF LIVE ANIMALS. "000" OMITTED.

	Sheep.		Cattle.		Horses.		Pigs.
1864.....	4,106	....	204	....	62	....	..
1874.....	6,120	....	185	....	93	....	78
1884.....	6,696	....	389	....	168	....	163
1889.....	6,386	....	324	....	170	....	106
*1891 (census).....	7,050	....	574	....	199	....	118

The exports of live animals are considerable, and, in the case of horses, larger than the imports. Thus in 1890 1,155 horses were exported, and only 588 imported. In the same year 20,000 cattle were imported, but only 3,932 exported. As to sheep, 468,000 were imported and 110,700 exported. Poultry showed an increase of 472,000 head, hence we may expect the present export of eggs, already valued at £44,000, to materially increase.

Ten years ago the wool exported was 43,500,000lbs., but in 1891 it had fallen to 39,281,000lbs., the lowest figure since 1881.

Under present conditions South Australia does not contribute very largely to the food of man outside its boundaries, wheat and flour forming the principal items. Metal and wool, however, represent large industries. Neither tea, sugar, nor tobacco are grown at present, but it is quite impossible to diagnose the future, when the great unexplored northern territory will be taken in hand. Much of this huge country is undoubtedly little, if any, better than a desert; but there are large tracts which are believed to be well adapted to grazing purposes, or to the production of sugar, which at the present time is imported by the colonists in large quantities. The chief imports are metal, wool, timber, sugar, coal, and manufactured goods. Tea cost £76,000 and sugar £329,000 in 1890. With the development of the northern territory will come the production of tropical plants, which will provide for the wants of the consumer in other parts of the empire.

* These figures do not agree with those in the report of the Government statistician, in which the horned cattle are returned at 359,938, horses at 187,686, and pigs at 116,277. The milch cows number 81,022, and the butter and cheese made is approximately 3,028,460lbs. and 840,921lbs. respectively.

CAN THE EMPIRE FEED ITS PEOPLE?

WEST AUSTRALIA.

THIS great colony, nearly 1,500 miles long by 1,000 miles wide, is as yet but partially explored. There are, however, portions of the country, especially in the neighbourhood of the chief rivers, which are well adapted to agricultural purposes, and are being gradually occupied. On the better portions of the plains there are plants peculiar to the country upon which sheep thrive, but throughout the greater portion of the colony there is a most imperfect water supply, and this, combined with the want of transport, will for some years at least militate against its rapid occupation. The basin of the Gascoyne and the valleys of the Grey, Fortescue, Ashburton, and Murchison rivers are all adapted for grazing, there being excellent land in large patches, but the rainfall is uncertain. In the Kimberley division in the north, a very hot and less healthy portion of the colony, cereals are not grown, but the pasturing of stock can be followed with success, and under given conditions the Government pay a bonus of 500 acres of land to colonists who produce a certain quantity of tea, sugar, tobacco, cotton, and some other crops. There are both droughts and floods, although neither are so common in the more fertile south-west. In Perth, the capital, situated on the south-west coast, the maximum temperature was 106° in the shade in January, and the minimum, in June, July, and August, 38° . The average temperature at twelve of the principal towns varied between 58° in the south-west corner and 86° at Wyndham in the north-east. There are thousands of square miles of forests, and for small sums licenses are granted to settlers to cut and export timber. The annual rainfall at Perth is 34 inches, but in exceptional years it has been very heavy, falling chiefly in the winter, whereas in the north it falls chiefly in summer. The chief articles of import are tea, sugar, wheat, spirits, and manufactured goods; while the principal exports are wool, gold, timber, and pearl shells. Butter, cheese, and oats are imported from adjoining colonies.

Very little has been done in the cultivation of grain, as the following figures show :—

GRAIN CROPS, 1874-91.

	WHEAT.		BARLEY.		OATS.
	Acres.		Acres.		Acres.
1874.....	25,697	.....	5,083	.....	1,474
1879.....	23,008	.....	5,927	.....	1,568
1884.....	28,768	.....	5,548	.....	1,395
1887.....	24,043	.....	5,185	.....	1,766
1891.....	33,820	.....	5,322	.....	1,934

Much more land is, however, under cultivation than formerly. In

CAN THE EMPIRE FEED ITS PEOPLE?

1874 the acreage was 51,724, in 1890 it had increased to 122,032 acres, although a large portion was not cropped, but simply cleared for fallow. The crops of the past three years were as follows:—

CEREAL CROPS, 1889-91.

	WHEAT.			OATS.			BARLEY.		
	Acres.	Bushels.	Bushels per Acre.	Acres.	Bushels.	Bushels per Acre.	Acres.	Bushels.	Bushels per Acre.
1889..	30,740	322,779	10·5	1,787	41,852	23·4	5,009	73,630	14·7
1890..	35,517	497,238	14·0	2,075	41,500	20·0	5,475	93,075	17·0
1891..	33,820	465,025	13·7	1,934	37,713	19·5	5,322	87,813	16·5

The colony does not produce sufficient grain to feed its people, the principal crops being chiefly grown in the neighbourhood of Perth on the west coast. Attempts, and somewhat successful ones, have been made to establish wine production, and it is believed that there are at least 5,000 square miles on the west coast suitable to the culture of the vine. Considering the slowness of the growth of the colony in population, live stock has increased with some rapidity.

NUMBER OF LIVE STOCK, 1874-91.

	Horses.		Cattle.		Sheep.		Pigs.
1874	26,290	....	47,640	....	748,536	....	20,948
1879	32,801	....	56,158	....	869,325	....	16,762
1884	32,884	....	64,558	....	1,315,155	....	18,512
1887	38,360	....	88,254	....	1,809,071	....	24,655
1889	41,390	....	95,822	....	2,112,393	....	25,083
1890	42,806	....	119,571	....	2,366,681	....	27,079
1891	48,999	....	134,997	....	2,563,866	....	32,267

The production of wool has increased from 3,861,000lbs. in 1883 to 9,625,000lbs. in 1890.

The enormous extent of land yet unoccupied is shown by the following figures:—

Acres alienated	5,154,673
Acres unalienated	673,245,327
Acres cultivated	145,376

Although Western Australia is as yet so little developed, there is sufficient known of the country to point to the fact that it is far richer, even from an agricultural point of view, than many suppose, or than many countries which flourish in times like the present. We need not expect it to send us much grain or dairy produce for some years, but it is in many parts admirably adapted to both as well as to the breeding of cattle and the cultivation of tropical plants, and in this direction it will some day add materially to the wealth of the empire. There are already over 1,000 acres of vines, and with time, wine, tobacco, sugar, cotton, and even tea cultivation will in all probability become important industries.

CAN THE EMPIRE FEED ITS PEOPLE?

TASMANIA.

TASMANIA is 16,750,000 acres in extent, and has 146,000 inhabitants. Its cultivated area has increased year by year until it has reached 517,000 acres. The number of cattle has increased from 83,000 in 1860 to 162,000, but there are fewer sheep than forty years ago, when they numbered 1,830,000, against 1,619,000 to-day. The chief item of export is wool, which reached its highest point a year ago, nearly 9,000,000lbs.

The total value of the exports and the imports in 1890 were—exports, £1,486,992; imports, £1,897,512. Both the export and import trades are chiefly with the other colonies, the trade with Great Britain being less than one-third. The chief articles of import are sugar, tea, coal, wheat, spirits, tobacco, and manufactured goods. The chief articles of export are wool, metal, tin, gold, fruit, potatoes, live stock, and timber. Formerly wheat was exported to an appreciable extent; now, however, it is largely imported. Grain crops were grown to the extent of some 65,000 acres in 1891, or nearly 30,000 acres less than in 1890, divided as follows:—

CEREAL CROPS, 1890-91. "000" OMITTED.

	Wheat.			Oats.			Barley.	
	Acres.	Bushels.		Acres.	Bushels.		Acres.	Bushels.
1890.....	49	.. 756	.....	40	.. 1,148	.....	4	.. 105
1891.....	39	.. 642	.....	20	.. 519	.....	4	.. 99

The yield of the cereals is much superior to that in some of the colonies on the neighbouring continent, thus:—

AVERAGE YIELD OF CEREALS, 1887-90.

	Wheat.			Oats.			Barley.	
	Bushels.			Bushels.			Bushels.	
1887	17·9	....	25·9	....	22·4			
1888	16·4	....	18·2	....	13·9			
1889	20·2	....	28·0	....	23·6			
1890	15·4	....	28·6	....	23·8			
1891	16·3	....	25·0	....	22·8			

It is said that the diminution of the cereal area is owing to bad prices, and that the colonists have given their attention to fruit and potatoes instead; at all events, in 1890 503,000 bushels of apples and 72,000 tons of potatoes were produced, although in the following year the apple crop was much smaller. At a recent date 666,000 acres had been leased by the Government, and 4,695,000 acres wholly or partially alienated. Land can be purchased or leased, and every opportunity is afforded to the settler of purchasing under convenient conditions of deferred payment.

CAN THE EMPIRE FEED ITS PEOPLE?

NEW ZEALAND.

THE colony of New Zealand will probably become the Great Britain of the Southern Hemisphere, for its capacity for manufacture is as great or greater than its capacity for agriculture. The work it is doing in provisioning the people of this country—a work which has developed with astonishing rapidity—is indicative of what will happen when the population has increased in proportion to the size of the colony itself. We shall see that New Zealand is destined to play an important part in the feeding of the empire, and consequently in the great scheme which we hope will unite us all together. British people are apt to think that Great Britain is the Empire, but here in the southern seas is a group of islands 104,471 square miles in extent, the loss of which would be severely felt by every household. Let us compare these islands, which compose the colony, with the United Kingdom, that we may better gauge its importance. The accompanying map shows the land surface features.

	Area. Square Miles.
England and Wales	58,311
Scotland	30,463
Ireland	32,531
	<hr/> 121,305
New Zealand—North Island	44,468
Middle Island.....	58,525
Stewart Island	665
Chatham Islands	375
Other ,,	438
	<hr/> 104,471

It is estimated that in the North Island there are 13,000,000 acres of land suitable for arable cultivation, although a great portion of this is forest land, or land requiring draining. This is 50 per cent more than the entire acreage under corn and pulse crops in the United Kingdom, or very nearly as much as the entire acreage under corn and green crops. This being the case, it is evident that when settlers have taken up the whole of the land available for grazing and general agricultural purposes, the exports of food from the colony will be enormous. We have, however, to add to this no less than 14,000,000 acres which are suitable, or capable of being made suitable, for grazing purpose. Coming to the Middle Island, we find that the



CAN THE EMPIRE FEED ITS PEOPLE?

land suitable for the growth of arable crops amounts to 15,000,000 acres, in addition to 13,000,000 acres which are better adapted for pasturing, so that, independently of the smaller islands, we get the following agricultural acreage :—

	Agricultural Land. Acres.		Pasture Land. Acres.
North Island	13,000,000	....	14 200,000
Middle Island	15,000,000	....	13,000,000
	<hr/> 28,000,000		<hr/> 27,200,000
	<hr/> 55,200,000 acres.		

The total cultivated area of the United Kingdom is only 48,179,000 acres, of which 27,567,000 acres are permanent pasture, so that while the British Islands closely resemble the New Zealand Islands in their pastoral area they contain some 8,000,000 acres less land suitable for the plough. Whereas, however, our population is between 30,000,000 and 40,000,000, the entire population of the colony (inclusive of 41,000 Maoris) is only 667,000, and at the present rate of increase it will be long before 1,000,000 is reached. Thus while New Zealand possesses every requisite for the production of food of almost every kind—soil, climate, rainfall, temperature, contiguity of almost every part of the country to the seaboard—her resources must long remain imperfectly developed for want of sufficient colonisation. According to the census of 1886, when the females were considerably fewer than males, but 51·89 per cent of the population was New Zealand born, 40·43 per cent having been born in the British Islands; but the proportion is doubtless changing.

The Government, which at one time contributed to the passage money of emigrants, now offers very liberal terms to the settlers who wish to take up land. They can either pay cash down, purchase upon the deferred system—half-yearly payments extending over a number of years—or they can obtain a perpetual lease of a very advantageous character. The hope of the colony as regards its immediate future is in the immigration of the small farming class, men who settle to work, and who at once commence to contribute to the prosperity of the colony as well as to their own prosperity. Up to March, 1891, no less than 6,966,000 acres had been sown with artificial grasses, showing an increase of 441,169 acres over the previous year. Such a result for so small a population is astonishing. Nearly half this land had been under the plough, the other half having been cleared. Some idea may be given of the extent of this grass-sown land when we say that the area so sown in the whole of the remaining Australasian colonies failed to reach 1,000,000 acres.

CAN THE EMPIRE FEED ITS PEOPLE?

In 1891 the live stock was as follows:—

LIVE STOCK IN NEW ZEALAND IN 1891.

Sheep.....	18,117,186
Cattle.....	831,831
Horses	211,040
Pigs	314,644
Goats	9,055
Poultry	1,790,070
Ostriches	179

The above figures are suggestive of the pastoral nature of the farming as it is at present conducted; but New Zealand, even as an agricultural colony, shows to great advantage as compared with the other colonies of Australasia, to say nothing of her pastoral area. The following table shows what has been done by cultivation:—

CULTIVATED ACREAGE IN AUSTRALASIAN COLONIES.

COLONY.	Acreage in Crop.	Acreage broken, but not in Crop.	Acreage in Sown Grasses.	Total Acreage in Cultivation.
New Zealand	1,285,768	210,509	6,966,218	8,462,495
New South Wales	872,344	260,627	385,504	1,518,475
Victoria	2,031,935	385,572	235,241	2,652,748
Queensland	224,993	14,625	22,252	261,870
South Australia	2,093,515	534,152	21,431	2,649,098
Western Australia	69,676	52,356	23,244	145,376
Tasmania	157,376	158,738	201,000	517,174

The figures in a few instances do not exactly correspond with those published elsewhere. The slight difference probably arises from the period of the year at which they are taken.

In the year ended March, 1892, no less than 1,750,000 acres were taken up by 3,797 settlers, giving an average of 458 acres per settler—an area equal to a good-sized English farm. The Government has recently passed an Act imposing a tax upon the unimproved value of land, commencing at £5,000, one-eighth of a penny being levied per £ sterling up to £10,000, the rate increasing step by step until 1⁶/₈d. is levied per pound upon values exceeding £210,000. The object is to discourage the acquisition of land by speculators who buy for a rise in value, and to encourage the working farmer who improves his land, and, simultaneously, the land of his absent neighbours. Many of our own countrymen would be wise to investigate the claims and prospects of New Zealand, more especially those who are still struggling against the bad times, but who, there is every reason to believe, would find the colony a field much more conducive to their success.

CAN THE EMPIRE FEED ITS PEOPLE?

The condition of the colony is well shown in the following table:—

IMPORTS, EXPORTS, AND ACREAGE, 1886-90. "000" OMITTED.

YEAR.	Total Value of Imports.	Total Value of Exports.	Land under Cultivation.	Land Sold or Disposed of since the commencement of the Colony.
	£	£	Acres.	Acres.
1886.....	6,759	6,672	6,845	18,558
1887.....	6,245	6,806	7,284	18,914
1888.....	5,941	7,767	7,670	19,244
1889.....	6,308	9,341	8,015	19,378
1890.....	6,260	9,811	8,462	19,666

Thus there is a steady increase in the exports and in the land under cultivation and sale, and a decline in the imports. The exports which furnish the most important figures include the following leading articles of produce:—

EXPORTS OF PRODUCE, 1881-90. "000" OMITTED.

YEAR.	Wool.	Frozen Meat.	Butter and Cheese	Agricultural Produce.	Total Exports of Produce.
	£	£	£	£	£
1881	2,907	....	14	1,089	5,762
1882	3,118	19	62	1,169	6,253
1883	3,014	118	48	1,537	6,855
1884	3,267	345	91	968	6,942
1885	3,205	373	138	688	6,591
1886	3,072	427	151	688	6,386
1887	3,321	455	109	588	6,551
1888	3,115	628	197	905	7,255
1889	3,976	783	213	1,424	9,042
1890	4,150	1,087	207	1,289	9,428

All articles the produce of the soil show a consistent increase, but the growth of the meat and dairy produce trade is the most astonishing. The 1890 exports show an increase over those of 1889 in the case of wool, meat, cheese, tallow, sheepskins, wheat (large), malt, beans and peas, horses, bacon, preserved meats, leather, hemp (phormium), timber, and kauri gum, but there is a decrease in the case of hides, flour, millers' offal, barley, oats, potatoes, hops, grass seed, cattle and sheep, salt meat, and butter.

The increases in the imports are owing to the large importations from Great Britain, Germany, the United States, and the Pacific

CAN THE EMPIRE FEED ITS PEOPLE?

Islands; whereas the decreases—and they are considerable—are in the imports from India, China, Mauritius, Australia, Java, and the Philippines, thus:—

COMPARISON OF EXPORTS, 1889-90.

	1889.		1890.		Increase.
United Kingdom	4,138,077	....	4,221,270	....	83 193
Germany	18,964	....	50,303	....	31,339
United States	342,536	....	355,395	....	12,859
Pacific Islands	26,213	....	38,235	....	12,022
Fiji and Norfolk Islands ...	127,131	....	138,274	....	11,143
Decrease.					
India and Ceylon	204,373	....	132,847	....	71,526
Hong Kong and China	111,621	....	59,421	....	52,200
Mauritius	129,943	....	91,520	....	38,423
Australia and Tasmania	1,107,132	....	1,087,593	....	19,539
Java	44,026	....	36,120	....	7,906
Philippine Islands	19,239	....	12,478	....	6,761
Japan	8,297	....	5,708	....	2,589

MEAT.

LET us first refer to the meat trade, which commenced in 1882. In eight years the exports have risen from £19,000 to £1,087,000, a sum which represented 98,234 cwt. of beef, and the carcasses of 1,609,000 sheep and lambs. This increase is more than maintained, for in 1891 there was a large increase in each of these departments of the meat trade. The following are the latest figures:—

EXPORTS OF MEAT, 1891.

	Weight. cwt.		Value. £
Frozen Beef	103,007	....	108,409
„ Mutton (1,447,583 carcasses) ..	781,404	....	919,306
„ Lamb (338,344 carcasses)	107,608	....	157,407
„ Veal	308	....	401
„ Rabbits	2,030	....	1,749
„ Unenumerated	5,950	....	7,452
Potted and Preserved	48,642	....	111,133
Beef, salted	12,604	....	12,153
Pork „	1,576	....	3,642
Unenumerated	244	....	587

There is no example with which we are acquainted which can compare with this trade, if we consider the time which has elapsed since its commencement and the number of the population.

DAIRY PRODUCE.

DAIRY produce next claims our attention. Here New Zealand is placed at an advantage, which in one respect at least is not unlikely to result in her reaching the head of the list of the dairy countries of the world. Her climate enables her to pasture her cattle all the year round. In the chief dairy districts—

CAN THE EMPIRE FEED ITS PEOPLE?

Taranaki, for example—the grass is of the highest quality. In European countries the dairy farmer is compelled to undertake considerable labour and expense in the cultivation of crops for winter food, and in the housing and management of the cattle. In New Zealand this is to a large extent quite unnecessary. While the climate is not unlike that of England, the mean temperature taken at five stations in 1890 varied between 51° Fahr. at Dunedin and 60° Fahr. at Auckland, showing a minimum of 26° and a maximum of 94·8° at Lincoln, the maximum at the other stations varying from 82° to 85½°. The rainfall varied from 14·8 to 50·4 inches, falling on from 104 to 176 days. The colonists, however, possess another advantage in connection with butter and cheese. Their winter season being contemporaneous with our summer, they are enabled to supply our winter markets with their summer produce at a time when it is scarce and dear in this country. The dairy factories number seventy-four, and they are likely to continue to increase. In 1890–91 they turned out 1,960 tons of cheese, 1,969,759lbs. of butter, and 85,520lbs. of bacon. In 1886 the butter made only amounted to 274,607lbs., and the cheese to 823 tons. The progress of the dairy trade will be better understood by reference to the following figures:—

PRODUCTION OF CHEESE AND BUTTER IN NEW ZEALAND, 1881–86–91.

	Cheese. lbs.		Butter. lbs.
1881.....	3,178,694	.....	8,453,815
1886.....	4,594,795	.....	12,170,964
1891.....	6,975,698	.....	16,310,012

The increased demand for New Zealand butter in the markets of London has given a stimulus to production in the colony which we foretold would be the case directly the colonists had so far perfected their system of manufacture and preservation during transit. The trade with the United Kingdom has grown with great rapidity, and it is plain from the figures representing the exports that the colonial makers find it their best market.

EXPORT OF BUTTER AND CHEESE, 1885–90.

Year.	Total Export of Butter.	Butter Exported to the United Kingdom.	Total Export of Cheese.	Cheese Exported to the United Kingdom.
	cwt.	cwt.	cwt.	cwt.
1885.....	24,923	273	15,245	272
1886.....	23,175	635	16,429	17
1887.....	17,018	6,937	23,913	9,900
1888.....	29,995	11,460	36,682	25,436
1889.....	37,955	21,099	26,558	7,633
1890.....	34,816	26,579	40,451	31,043

CAN THE EMPIRE FEED ITS PEOPLE?

FRUIT.

THE success of Californian fruit growers has directed attention to the subject of fruit growing in New Zealand, for it is claimed that the different provinces can produce between them all the best kinds of fruit required in the leading markets of the world. Oranges, lemons, grapes, figs, and olives can be grown in Auckland, whereas apples and other fruits common in Great Britain can be produced in the south in great abundance, and landed in the London market when the English season is over. An irrigation system may be necessary as a protection against dry seasons, although drought is practically unknown. In 1891 there were already 17,047 acres of orchard land, an increase of 1,276 acres on the previous year. Exports of apples have been successfully made and attention is being directed to the subject, but it is obvious that under any circumstances a considerable time must elapse before any great strides can be made, inasmuch as fruit trees of the best varieties, apples in particular, require years to develop before bearing. Mulberry trees have been planted with the object of encouraging the silk industry, and it is believed that silk, wine, and olives can be produced of as fine a quality as in Italy.

The census returns of 1891 show that there are already fifteen fruit-preserving factories, in which 1,250,000lbs. of jam and 50,000lbs. of bottled fruit were prepared in 1890.

SUGAR, TEA, TOBACCO, AND DRINKABLES.

THESE articles of consumption are imported by the colonists in considerable quantities.

IMPORTS OF SUGAR, TEA, TOBACCO, WINES, SPIRITS, AND BEER, IN 1890.

	£
Sugar	383,610
Tea	154,057
	<hr/>
	537,667
	<hr/>
Beer	54,164
Spirits	144,914
Wine	50,435
	<hr/>
	249,513
	<hr/>
Tobacco	103,064

Tea and sugar are, and will continue to be, articles of import to a large extent, nor is it necessary that the colonists should trouble themselves about their cultivation. The tobacco plant is one which is not likely to receive very much attention, in spite of the small duty imposed upon colonial-grown tobacco. In 1889 there were 34 acres, in 1890 25 acres, and in 1891 only 16 acres devoted to its cultivation. It is found necessary to mix imported with New

CAN THE EMPIRE FEED ITS PEOPLE?

Zealand leaf in manufacture, so that the encouragement given is, according to the figures we have quoted, insufficient to induce growers to extend their acreage. The New Zealand people have gradually decreased their *per capita* consumption of intoxicating liquors; thus, excluding native consumption, we have the following striking figures:—

CONSUMPTION PER HEAD.

	Beer. Gallons.		Spirits. Gallons.		Wine. Gallons.
1881.....	10·251	....	1·159	....	0·335
1885.....	8·414	....	0·899	....	0·261
1888.....	7·133	....	0·820	....	0·167
1890.....	7·960	....	0·697	....	0·185

In the United Kingdom the consumption of beer is 28·74 gallons and of spirits 0·59 gallons. If, as appears to be the case, the colonists, little as they drink, cannot produce all they require, they are in the position of being able to obtain all they require from the mother country in exchange for their milk produce and mutton. There are, however, 102 breweries—which in 1890 turned out 5,000,000 gallons of beer—27 maltings, and we may add 43 boiling down, meat preserving, and freezing works, which in 1890 turned out produce to the value of £1,464,000.

We must not omit reference to the great agricultural interest, which has always been important, but which developed to such an extent in 1890 in the department of wheat exportation.

EXPORTS OF WHEAT AND FLOUR.

		Wheat. Bushels.		Flour. Tons.
1882		3,188,621	....	10,932
1885		1,359,119	....	5,244
1887		630,214	....	1,575
1889		2,094,143	....	16,183
1890		4,467,026	....	9,937

In 1891 there were in all 38,083 holdings in the colony, and 703,329 acres under grain crops, as follows:—

AREA UNDER GRAIN CROPS, 1887-89-91.

	Wheat. Acres.		Oats. Acres.		Barley. Acres.		Other. Acres.
1887	253,025	....	387,228	....	21,535	....	..
1889	362,153	....	367,225	....	45,027	....	19,461
1891	301,460	....	346,224	....	32,740	....	22,905

The acreage was much less in 1891 than in either of the three preceding years, and so far the development of cereals is not rapid. The produce of wheat, the leading cereal, has varied considerably; but the average has been excellent both as regards wheat and oats, if we look at the past five years.

CAN THE EMPIRE FEED ITS PEOPLE?

YIELD PER ACRE OF WHEAT AND OATS, 1887-91.

	Wheat. Bushels.		Oats. Bushels.
1887	24·89	....	30·92
1888	26·37	....	31·24
1889	24·22	....	29·89
1890	25·15	....	32·10
1891	18·99	....	28·73

A very large crop of oats—134,000 acres—in 1891 was grown for green food. Potatoes occupy 32,000 acres and turnips 402,000 acres, the latter clearly being utilised as they are in England in the rotation of arable farming.

INDIA.

To deal adequately with the resources of our Indian Empire would need a volume. We can here scarcely do more than refer to the articles of produce and export which are necessary to the people of the empire at large. India imports merchandise to the value of Rx.71,000,000 (Rx. = ten rupees), and exports to the value of Rx.100,000,000, showing a total increase in trade of $36\frac{1}{2}$ per cent in ten years. The imports from the United Kingdom are equal to Rx.62,000,000 on the average of three years, and the exports to the United Kingdom Rx.36,000,000, China, France, and the Straits Settlements coming next in order. Whereas India chiefly imports from us manufactured goods, she exports to us coffee, cotton, grain, hides, jute, oil seed, sugar, tea, and wool, all of which play an important part in the question under discussion, and therefore reference to each will be necessary. But India exports large quantities of cotton, jute, indigo, oil seeds, wheat, coffee, silk, rice, and opium, among other things, to France, Germany, Austria, Belgium, Italy, Egypt, the United States, and China; while in return she obtains from these countries, or some of them, manufactured goods, salt, sugar, mineral oils, silk, beer, wines, and spirits. It may be noticed that India is largely dependent upon Russia (19,750,000 gallons) and the United States (32,500,000 gallons) for her supply of mineral oil, upon the United Kingdom for beer, and upon Mauritius, China, and the Straits Settlements for sugar, in spite of the fact that sugar is an Indian product.

What power India has of increasing her wheat crop we must leave for subsequent discussion. At the present time her exports to us stand third on the list, being smaller only than those of the United States and Russia. She has increased her exports to the United Kingdom from 6,000,000 cwt. in 1877—a year which was

CAN THE EMPIRE FEED ITS PEOPLE?

followed by very small exports for two years—to 13,000,000 cwt. in 1891, when the crop was very large. The total exports in that year reached over 20,000,000 cwt., Egypt, France, and Belgium taking large quantities. The bulk of the wheat crop is exported from Bombay and Sindh. In 1889 the known area under wheat was as follows:—

WHEAT AREA IN PART OF INDIA, 1889.

	Acres.
Madras	18,902
Bombay (including Sindh)	2,311,558
North-West Provinces and Oudh	4,725,088
Punjab	6,436,087
Central Provinces	4,094,711
Upper Burmah	15,843
Berar	830,027
Other Provinces	10,731
	<hr/> 18,442,947

To the above might probably be added several millions of acres both of wheat and a mixture of wheat and grain or barley, for in Bengal, Rajputana, and other states, a great deal is grown, statistics of which are not forthcoming. When, therefore, we remember that the area under wheat in the United Kingdom is under 2,500,000 acres, we can understand that, the natives not being a large wheat-eating people, there is plenty of room for exportation. The yield per acre, however, is not half so great as in this country, although the tablelands upon which the crops are chiefly grown in the northern part of India are admirably adapted for wheat cultivation.

In addition to the present large wheat acreage, upon which heavier crops might be grown were it worth the while of the grower to till his soil more thoroughly, and were there practical means of instructing the ryot in superior methods, there are millions of acres which might be added to the already large area. Rice, however, rules the question, for whereas in some provinces conveyance to the coast is at present too costly, in all cases the cost of freight is felt severely, and what is perhaps worse the rate of exchange. It is, however, in the power of the Government to minimise these troubles should necessity arise, and therefore to create in India a very much larger wheat-producing area.

Rice is exported from India at the rate of some 30,000,000 cwt. annually (1890-1, 34,474,000 cwt.) in spite of a small export duty. Egypt, the Straits Settlements, the United Kingdom, Ceylon, Mauritius, and South America take the bulk. Rice is the chief food crop grown in India, and it is perhaps the chief food of the

CAN THE EMPIRE FEED ITS PEOPLE?

people, especially in certain provinces; in others, millet and pulse are the leading dietaries. The acreage devoted to rice in 1888 is approximately as follows:—

RICE ACREAGE, 1888.

Bengal	41,618,560
Madras	6,285,806
Bombay and Sindh	2,239,198
North-West Provinces and Oudh	6,778,151
Punjab.....	690,565
Central Provinces.....	3,785,566
Burmah	5,673,542
Assam	1,262,791
Other Provinces.....	95,187

68,429,306

This is in addition to large areas in native states. From the above acreage the yield was computed by Dr. Watt at 26,559,255 tons of husked rice. It is probable that the rice crop might be considerably increased, but at the present time the export is small compared with the yield.

The exports of coffee have fallen from 370,000 cwt. in 1886 to 233,450 cwt. in 1891. No figures respecting the area or yield can be given, the bulk of the crop grown being in native states. The climate of a large portion of Central and Southern India is well adapted to coffee production, and under suitable circumstances there would appear to be nothing to prevent the present area being extended.

Tea, as we have already remarked, is a leading article of export. The increase in the trade is shown by the following selected figures:—

EXPORTS OF TEA FROM INDIA.

	lbs.		lbs.
1868	8,250,910	1888	97,011,112
1878	33,656,961	1890	107,014,993

Of this enormous export, 100,000,000lbs. came to the United Kingdom, the balance chiefly going to Australasia.

Oil seeds form a very large item of export, 14,750,000 cwt. being sent out of India in 1890. These seeds are chiefly linseed—used on British farms to an enormous extent as a stock food in various forms—rapeseed, sesame, poppy, earthnut, and castor. Linseed is the leading article, and of 8,000,000 cwt. exported in 1890, more than half came to Great Britain; France, Belgium, the United States, and Holland taking almost the remainder. Belgium and France take most of the rape seed, France the bulk of the sesame

CAN THE EMPIRE FEED ITS PEOPLE?

seed, France and Belgium almost all the poppy seed, and France the bulk of the earthnut and castor seed. The total export in this important branch of Indian produce is as follows :—

EXPORT OF OIL SEEDS, 1890.

	cwt.	Chief Importing Countries.
Linseed	8,077,301	.... United Kingdom.
Rape seed	1,554,708	.... France and Belgium.
Sesame seed	1,846,732	.... France.
Poppy seed.....	678,511	.... France and Belgium.
Earthnut	1,525,238	.... France.
Castor seed.....	859,772	.... France.

The annual value of the above exports exceeds Rx.10,000,000. The following is the official return of the acreage under crops of oil seeds in 1889 :—

AREA OF OIL SEED CROPS, 1889.

	Acres.
Madras	1,908,022
Bombay	1,941,678
North-West Provinces and Oudh	1,011,594
Punjab	617,311
Central Provinces	1,348,327
Burmah	388,584
Berar	433,940
Other Provinces	191,377
	<hr/> 7,845,302

The production of linseed might be largely increased, for the acreage, believed to be 5,000,000, is large for the crop raised. We must not omit to mention cotton seed, of which in 1891 we imported 6,500,000 cwt., of which 6,250,000 cwt. came from Egypt, and practically nothing from British possessions. India, however, is said to produce 27,000,000 cwt. of seed, one-half of which has been assumed to be available for export. The trade might be increased to enormous proportions if prices were maintained, as they could be, at a normal figure by fair competition, inasmuch as there is no single article known which is so beneficial in simultaneously feeding stock and improving the fertility of the soil through the medium of manure produced by stock feeding upon it. Cotton seed, as the only factor in the manufacture of cotton cake, is necessary to English farming, and every effort should be made to encourage its export into this country from India.

Raw cotton—exported to the extent of 6,000,000 cwt., 1,500,000 cwt. of which comes to the United Kingdom, large quantities going to Belgium, France, Germany, Italy, and

CAN THE EMPIRE FEED ITS PEOPLE?

Austria—is the leading article in the export trade of India. Cotton manufactures are exported to about one-half the value of raw cotton, China being by far the largest buyer. The world's consumption of cotton is said to be 4,600,000,000lbs., whereas the average Indian production of clean cotton is estimated at little more than 1,019,000,000lbs., the produce of 14,222,000 acres, of which 5,350,000 are in Bombay. For this product we are not absolutely dependent upon outside sources as regards our own requirements, but inasmuch as a leading branch of British industry is connected solely with cotton, a short supply would mean famine of a nature which experience has taught us to appreciate. The crop varies from 40lbs. to 150lbs. per acre, the latter being produced on irrigated land, and the trade being satisfactory. The average ($71\frac{3}{4}$ lbs.) is believed to be sensibly increasing.

The trade in hides and skins is not so large as it was, but it is represented by an export of the value of Rx.4,695,919 in 1890. The hides come chiefly to us, and the raw skins go to the United States.

The trade in jute is increasing, and is a leading industry in Bengal of an export amounting to 11,750,000 cwt. in 1890 (8,306,000 cwt. in 1886). No less than 6,750,000 cwt. came to the United Kingdom, the United States and Germany taking the bulk of the balance.

The silk trade of India has declined, for in spite of an export of 9,750,000lbs. there is an import of 2,500,000lbs. Indian silk cannot compete with those of China, Japan, and Europe.

India produces and exports sugar, but it is chiefly unrefined, almost all coming to the United Kingdom. The proportions exported in 1890 were 795,000 cwt. unrefined and 28,760 cwt. refined.

Of wool we find 21,344,000lbs. are exported less than formerly, but a substantial trade, which would increase with better prices. Almost all the produce comes to the United Kingdom.

In dealing with Indian matters it is necessary to remember the fluctuating value of the rupee, which is so conspicuous that it has found a leading place in illustration of the doctrine of Bimetallism. Twenty years ago a rupee was worth 1s. 11d., it systematically fell in value for sixteen years, when it reached 16½d., rising again for two years when 18d. was reached, but it is now only 17d.

We have seen that India is a great rice, wheat, tea, cotton, wool, jute, hide, coffee, and oil seed producing country; that with these articles she can do much more than supply her own population, stupendous as it is; that her production has by no means reached its maximum; and that not only could she materially increase her output in each direction, but probably also produce more silk, sugar, and tobacco. She is, then, an inestimably valuable portion of our empire.

CAN THE EMPIRE FEED ITS PEOPLE?

CEYLON.

THIS island contains 16,250,000 acres, and 3,000,000 of people, of whom 22,000 are British or of European origin. Of this number 644,284 persons are engaged in agriculture. The mean temperature varies from $57\frac{1}{2}^{\circ}$ Fahr. at Nuwera to $80\cdot7^{\circ}$ at Colombo. The rainfall varies from 51 $\frac{1}{4}$ in. at sea level to 76 $\frac{3}{4}$ in. at Nuwera (6,100 feet), 105in. at Galle (17 feet), and 135 \cdot 75in. at Drehoyn (4,300 feet). It is said that in some districts 200in. of rain is exceeded.

The total imports have increased from 47,750,000 rupees in 1886 to 63,000,000 rupees in 1890, 40,000,000 coming from British possessions and 18,500,000 from Great Britain. The exports have increased with equal rapidity. In 1886 they amounted to 34,750,000 rupees, and in 1890 to 51,000,000, the bulk going to Great Britain (33,000,000), and of the balance, 10,000,000 to other British possessions. The chief imports are coal and cotton goods from England, and rice, fish, and cotton goods from India. The chief exports are tea, coffee, plumbago, areca nuts, cacao, cinnamon, and cocoanut oil. The Ceylon coffee trade is not what it was, but the tea trade has grown with such great rapidity that it has long passed the trade with China.

IMPORTS OF TEA INTO THE UNITED KINGDOM. "000" OMITTED.

	China. lbs.	India and Ceylon. lbs.
1886.....	145,308	80,611
1887.....	119,799	97,707
1888.....	105,000	112,383
1889.....	88,000	128,057
1890.....	73,740	143,261

Ceylon is not only supplying the United Kingdom with tea but other countries, and there is reason to hope that before long we shall be independent of China, and indeed able to supply far more than the requirements of the whole empire.

CHIEF EXPORTS OF TEA FROM CEYLON IN 1890.

	lbs.
Great Britain.....	42,885,071
India	171,103
Australia.....	2,361,433
Mauritius	30,646
United States.....	154,832
China and Hong Kong.....	86,800

In proportion, however, as our Indian tea trade increases, the Ceylon coffee trade appears to decrease, 75 per cent of the coffee produced in the world being grown in Central America and the West Indies. The produce of the cocoanut palm forms a considerable

CAN THE EMPIRE FEED ITS PEOPLE?

item in Ceylon exports—oil, copra (the kernel), fibre, and poonac, or oil refuse, all realising large sums. Rice, tobacco, sugar, and cotton are also grown.

CULTIVATED CROPS, 1890.

	Acres.
Paddy	536,367
Other Grain	124,302
Coffee	66,530
Cacao.....	15,896
Cinnamon	40,336
Cotton	1,174
Tea	235,794
Tobacco	9,515
Cocoanuts	649,869
Cinchona	39,587
	<hr/>
	1,719,370

Rice is not grown in sufficient quantity to supply the people. Coffee has fallen from an export of 1,000,000 cwt. in 1869 to 87,000 cwt. in 1889, while tea has risen from 492lbs. in 1874 to 45,750,000lbs. in 1890. The change was chiefly owing to the appearance of a deadly fungoid parasite which attacked and destroyed the coffee plants. Among minor products are cinnamon, ginger, nutmeg, pepper, rubber, and various dyestuffs. In 1890 the tobacco exported reached 54,000 cwt.

SOUTH AFRICA.

THE Cape—as Cape Colony, Griqualand, and the neighbouring native territories which are officially allied together are termed—is growing in importance, and has lately become a great factor in our colonial empire. It is larger than Germany, containing 221,000 square miles, and according to the 1891 census contains 1,527,224 inhabitants, as follows:—

European Race	376,987
Malay „	13,907
Hottentot „	50,388
Fingo „	229,690
Kaffir and Bechuana Races.....	608,456
Mixed and other „	247,806
	<hr/>
	1,527,224

According to the returns of 1875 for the Cape, of 1877 for Griqualand West, and of 1879 for the other territories, the population was 1,029,246, of whom 251,725 were white, so that the increase has been 48·38 per cent in fifteen years, or as regards Europeans 49·76 per cent. The whole of the native races have also sensibly increased. In Great Britain the increase since 1871 has been at the rate of 14·34 per cent. The agricultural population

CAN THE EMPIRE FEED ITS PEOPLE?

numbers 672,458, far larger than any other branch, forming 44·03 per cent of the whole, or, if we take males only, 49·99 per cent; of these 58,064 are Europeans, and 377,440 all races.

The climate is suitable to Europeans, indeed it is in many respects similar to that of parts of Europe. In some parts, the north-west in particular, the rainfall is slight; in others, as in the south-west, it is sufficient for every agricultural requirement. The mean temperature, except in the mountains, varies between $43\frac{1}{2}^{\circ}$ and 80° Fahr., Capetown being midway between these extremes. The agricultural area is not actually known, no statistics having been obtained since 1875, when the acreage in grain was as follows:—

ACREAGE IN GRAIN CROPS, 1875.

	Acres.		Bushels.
Wheat	188,340	....	1,687,936
Barley	29,179	....	747,049
Oats	114,651	....	1,229,543
Maize	131,304	....	2,214,217

In 1891 the yield was as follows, the increase in every case being considerable:—

	Bushels.		Bushels.
Wheat	2,727,490	Maize	2,894,482
Barley	923,064	Kaffir Corn.....	1,387,610
Oats	1,810,130	Rye	527,425

Oat hay was raised to the extent of 187,500,000lbs.

Of other crops, the following official returns are given:—

	lbs.		Bushels.
Mangels	28,296,200	Peas and Beans	186,276
Lucerne.....	9,706,200	Potatoes.....	760,047
Clover	1,293,900	Sweet Potatoes.....	421,922
Tobacco.....	10,993,200	Onions	20,000

The vine is extensively cultivated throughout Cape Colony proper, the stocks numbering 78,500,000. A portion of the grape crop, 268,000 baskets, was not made into wine, but the remainder, 5,129,000 baskets, were converted into—

	Gallons.		Gallons.
Red Wine	1,047,906	Brandy	1,423,043
White Wine	4,964,616	Vinegar	137,134

In addition to the grapes sold fresh, a large quantity of raisins were made. The wine crop was considerably larger than in 1889 or 1890, and much more brandy was also produced. According to the evidence of an expert, Mr. Noble, the Cape vine is the most productive in the world, and yet its quality is high. He also remarks that the inferiority of the wine is entirely owing to want of skill and care in manufacture.

CAN THE EMPIRE FEED ITS PEOPLE?

Fruit of other kinds is also extensively produced. The numbers are given in the Government report as follows:—

Oranges	24,452,000	Pears	6,794,700
Lemons	5,890,000	Peaches	21,000,000
Apples	11,985,500	Other Fruits	34,000,000

Among dried fruits, raisins amounted to 2,599,000lbs., and other fruit to 2,612,000lbs.

Coming to pastoral pursuits, we first give the number of live stock, 1891:—

	Total.	Owned by Europeans.
Cattle	2,210,834	1,099,167
Horses and mules	540,492	387,044
Sheep and goats	23,334,000	19,059,000
Pigs	288,190	143,671
Ostriches	154,880	152,291
Poultry	2,665,855	1,519,811

The returns have never been taken so completely before, and it is next to impossible to show with any degree of accuracy what increase has taken place, but it is known to be large in every department of stock. Goats of the Angora breed, for example, have in consequence of the importance of the mohair trade increased from 877,988 to 3,039,925 in one section.

The wool and mohair clip is very extensive. It was in 1891:—

Wool.....	56,038,660lbs.		Mohair.....	6,833,558lbs.
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There is also an extensive trade in skins, hides, and ostrich feathers, the latter amounting to 144,340lbs.

The dairy industry is very small. A large quantity of land is under irrigation.

The imports and exports were long abreast of each other, but in 1885 the exports got ahead, and have since maintained not only the highest figures but a consistent annual increase. The imports, however, have gone up rapidly since 1889. The following are the totals, excluding specie:—

IMPORTS AND EXPORTS, 1886-90. "000" OMITTED.

	Imports.	Exports.		Imports.	Exports.	
1886.....	3,799	7,125	}	1889.....	8,446	9,591
1887.....	5,036	7,858		1890.....	9,366	10,152
1888.....	5,678	8,876				

It is hardly necessary to say that the bulk of both the import and export trade is with Great Britain. The colony imports manufactured goods, cotton, coal, leather, machinery, and metal, with a small quantity of spirits, grain, and provisions. On the other hand,

CAN THE EMPIRE FEED ITS PEOPLE?

the chief exports are wool and mohair—the former being by far the largest item—skins, hides, feathers, and copper. No food or drink but wine enters to any noticeable extent into the export trade, but coffee, rice, and sugar have appeared; both sugar and coffee are, however, imported from Mauritius and Brazil respectively. It would appear that the tobacco plant can be largely extended, and it is probable that this will be the case if we may judge from the increase in the yield, which in 1891 was more than double that of the previous year and nearly double that of 1889.

There are still nearly 45,000,000 acres of land to be sold or let, 28,000,000 acres of which are in Government hands. Of the remainder, over 90,000,000 acres are already alienated.

The territory of Basutoland, which recently joined the South African Customs Union, is extensive, exceeding 10,000 square miles in area. Its soil is fertile, and well adapted for pasturing farm stock and growing grain.

British Bechuanaland is 50,000 square miles in extent. It has a dry, healthy climate, a moderate rainfall, about 25 inches, and produces maize, wool, cattle, and hides.

From Natal we import wool and mohair to the value of nearly £1,000,000, cotton, hides, and skins, exporting in return manufactured goods, metal, leather, beer, machinery, spirits, and condensed milk, among many other things. The climate is variable, depending generally upon the elevation; while the rainfall is small at Pietermaritzburg, but as high as 40 inches on the coast, chiefly falling in summer. May to July are the finest and coolest months. Natal is 20,000 square miles in extent, and its population 455,000, of which the vast majority is native. The agricultural system is varied; cattle and sheep breeding is conducted in the more elevated districts, grain is produced in the midland districts, and tropical crops—tobacco, sugar, tea, and arrowroot—on the coast. The soil is in great part rich, and well adapted to the cultivation of such produce as we require in Great Britain. We give the acreage of the leading crops:—

CROP AREA, 1888-90.

	1888. Acres.		1889. Acres.		1890. Acres.
Maize	224,749	....	189,895	....	185,299
Sugar	14,275	....	15,541	....	13,016
Kaffir Corn....	58,703	....	82,556	....	143,630
Wheat	2,048	....	928	....	569
Barley	514	....	412	....	650
Oats	7,910	....	9,750	....	9,814

The crops are not large, but this is chiefly owing to the system which is pursued.

CAN THE EMPIRE FEED ITS PEOPLE?

The live stock of the colony for the years 1885-89-90 is as follows:—

	1885.		1889.		1890.
Cattle	600,984	....	745,931	....	686,583
Sheep	535,482	....	652,506	....	827,559
Pigs	23,419	....	40,950	....	38,577

Dairy farming is not so extensive as it might be, as there are excellent facilities. Cattle breeding is chiefly in the hands of the natives, and sheep breeding in the hands of Europeans.

The produce of the colony in three leading departments is as follows:—

	1888. lbs.		1889. lbs.		1890. lbs.
Wool	1,720,980	....	2,114,548	....	1,584,000
Butter	335,436	....	356,511	....	362,139
Cheese.....	2,452	....	1,565	....	13,728
Bacon	479,180	....	544,829	....	410,169

A very much larger quantity of wool is exported, 27,000,000 lbs.; but the bulk of this is obtained from neighbouring Dutch colonies. Land is let or sold on easy terms to farmers and their families and servants under certain conditions. The area as yet unalienated is 3,100,000 acres, of which over 1,000,000 are in process of alienation.

SUMMARY.

COLONEL HOWARD VINCENT says that “whereas the imports and exports from and to British possessions almost balance, we import so much more from foreign countries than we export that there is an adverse balance against us, and for 1891 this balance is £120,000,000. While our imports are increasing our exports are decreasing.” This is an unmistakable fact. In 1890 each head in Great Britain bought from the foreign producer goods to the value of £8. 13s. 4d., but sold to him to the value of only £6. 4s. 6d. Our fellow members of the empire across the seas are much better customers than the members of any foreign nation, and in return we are better customers to them. Foreign nations are, however, taking advantage of their position with regard to our colonies, and their exports have increased enormously, in fact by a far greater percentage than has the trade between the colonies and ourselves, excellent as that has been. Our trade with our colonies is mutually advantageous; we have helped to develop the colonies, and the colonists remember the claims and ties of kinship. What we require in the way of raw material the colonies will ultimately be able to supply, and it is alike our duty and our interest to encourage them to do so. The chief difficulty in the way of trade extension is that our assistance in the expansion of our

CAN THE EMPIRE FEED ITS PEOPLE?

colonial trade is given to a large extent at the cost of our own people, for the colonies have protective tariffs against us, whereas we admit the bulk of their products free. The Hon. James Munro, Agent-General for Victoria, recently said, in speaking of the proposed federation of Australia, that "the next best thing would be free trade among the Australasian colonies, but that even then there would undoubtedly be a protective tariff against the outside world, including Great Britain, although, if Canada took the lead, we might get a preferential rate in course of time." Mr. Munro at least does not believe there will ever be free trade throughout the world, and he asked how it was possible for a man who paid 6s. a day wages as in Australia to compete with another who paid only 10s. a week as in England? We may add to this the suggestion that it is equally difficult for the farmer at home to compete against the colonial farmer whose rent is either nominal or nothing at all. That an uniform tariff for the whole empire would be beneficial to us and to the colonies themselves if a protective tariff were maintained against the rest of the world there can be little doubt. Our great import trade with foreign countries would be gradually diverted to the colonies, which would receive an enormous impetus by the increased demand and the better prices which would rule. The colonies would soon be equal to the emergency, and their trade with us would rapidly increase. The difficulty of competing against us in manufactured goods we readily admit, but that would be counterbalanced by a similar difficulty which we should experience in competing against them in the production of meat and grain, butter and cheese, wool and cotton, tobacco and sugar. Mr. Goschen said not long ago: "If we could make the whole empire one as regards customs, surely we have the same right of Zollverein union with our colonies as Germany has with Bavaria, or the United States among themselves. I claim for ourselves the same right." The existing principle of importing the produce of other men and selling it at a lower price than it can be produced at home is gradually ruining the great agricultural interest of this country, and it is affecting other industries very seriously. Nevertheless, a recent speaker prominent among labour organisations told his hearers that this was a manufacturing country, and the well-paid British workman could afford to pay foreigners to produce his food for him.

Professor Wallace, who has had excellent opportunities of forming an opinion from his agricultural explorations in Australia, India, and Canada, writes us as follows:—"It is my belief that the British Empire possesses natural resources which would enable it to feed its own people, but the strain of doing so, if tried, would require to be introduced gradually. To make us dependent upon the products of the empire alone without extensive preparations would bring us

CAN THE EMPIRE FEED ITS PEOPLE?

within measurable distance of famine, and raise the price of food-stuffs to famine prices. The Indian supply of grain is not to be relied upon every year owing to the periodical recurrence of famine, and until the Canadian North-West is more settled up that immense and valuable wheat-growing region is liable to suffer from the injurious influences of early autumn frosts. These will, no doubt, following the general rule, become somewhat modified as the land gets broken in from a state of nature. The extension of the wheat-growing area in Australia is checked by the prevalence of rust of wheat. I believe it is only a matter of time when both of the last-named difficulties will be overcome by means of experiments such as the Messrs. Garton are conducting at Newton-le-Willows. By cross-fertilisation early wheats will be got which will ripen before the injurious early frosts appear; and by the same means wheats with vigorous constitutions will undoubtedly be got which will resist rust and other fungoid diseases better than the best so-called rust-proof forms of the present day. No doubt the empire possesses the resources necessary to feed its own people, but these require to be developed, and it will take some time to carry out the work of development, because the scientific lines upon which it must proceed are not yet fully agreed upon."

In his work upon Indian Agriculture, Professor Wallace says that "wheat is consumed by the wealthier classes in most parts of India, but only in the Punjab is it the staple of all classes. Rice is not the universal food crop it is supposed to be, and although it is consumed by the richer classes in all parts of the country, it is the staple food of but a limited number of the population, the most widely-used food grains being millet and to some extent pulses." According to official data, "considerably more than 80 per cent of the food-growing area in Bombay, Berar, and Mysore is under millet, whereas in some of the important divisional areas, including Bengal and Assam, the great centre of rice cultivation, does the extent of millet fall short of one-third of the total breadth of crops planted." Under these circumstances any serious increase in the wheat acreage would in normal years add considerably to the Indian exports, especially if the agricultural system of India were modified in accordance with the teachings of modern science. Upon this point, however, we refer readers to "Indian Agriculture." Nor can we afford to ignore a sugar-cane industry when, as is estimated, 2,000,000 tons are annually produced in India.

It has been suggested that Canada should lead the way in approaching the British Government with a view to fiscal reform throughout the empire, but it is unquestionably for the British people to take the first step. Could Canada, or any other British possession or colony, unite with us now, and alone? Such an

CAN THE EMPIRE FEED ITS PEOPLE?

arrangement does not appear to be possible, for the tariff stands in the way on each side. And yet the duties which Canada imposes upon our goods is paid by Canadians. Eight years ago Mr. Stephen Bourne, in a paper read at the meeting of the British Association in Canada, said: "Beyond England's need for importing she has other wants—that of the lands to receive her growing population which she may find in her colonies, and the occupation for her accumulated manufacturing power which she may expect to create through those whom she sends forth. Thus the increase of the species may be rendered a blessing rather than a curse. For both to benefit by this mutual dependence there ought to be the most unfettered interchange of the commodities which each grows or makes, and, whatever may be said as to protection against foreigners, nothing in the shape of protective duties ought to impede or divert commerce between portions of the same empire. Revenue duties stand upon a different footing, but they should be raised upon imported and home products alike. It would be a great step if in all the colonies and the mother country the same articles were subjected to customs and excise duties at similar rates, and the whole money so raised were appropriated to the cost of defence. It is scarcely to be questioned that absolute free trade at least between all parts of the empire must ultimately exist, although it is possible that special circumstances may for a limited period require or justify that general economic principles should give way to particular necessities. As to foreign countries, the selfishness which induces them, whilst availing themselves of all the advantages of free trade with us, to withhold from us the corresponding benefit, should be met, not by protective duties, but by an absolute refusal on our part to trade with them at all. Figures prove that they really depend more upon us than we on them, and due notice to this effect, so given as to afford us hope of reversal, would in all probability bring about the result without any actual stoppage. *England might* depend upon the resources and rely upon the loyalty of her colonies to sustain her in this conflict."

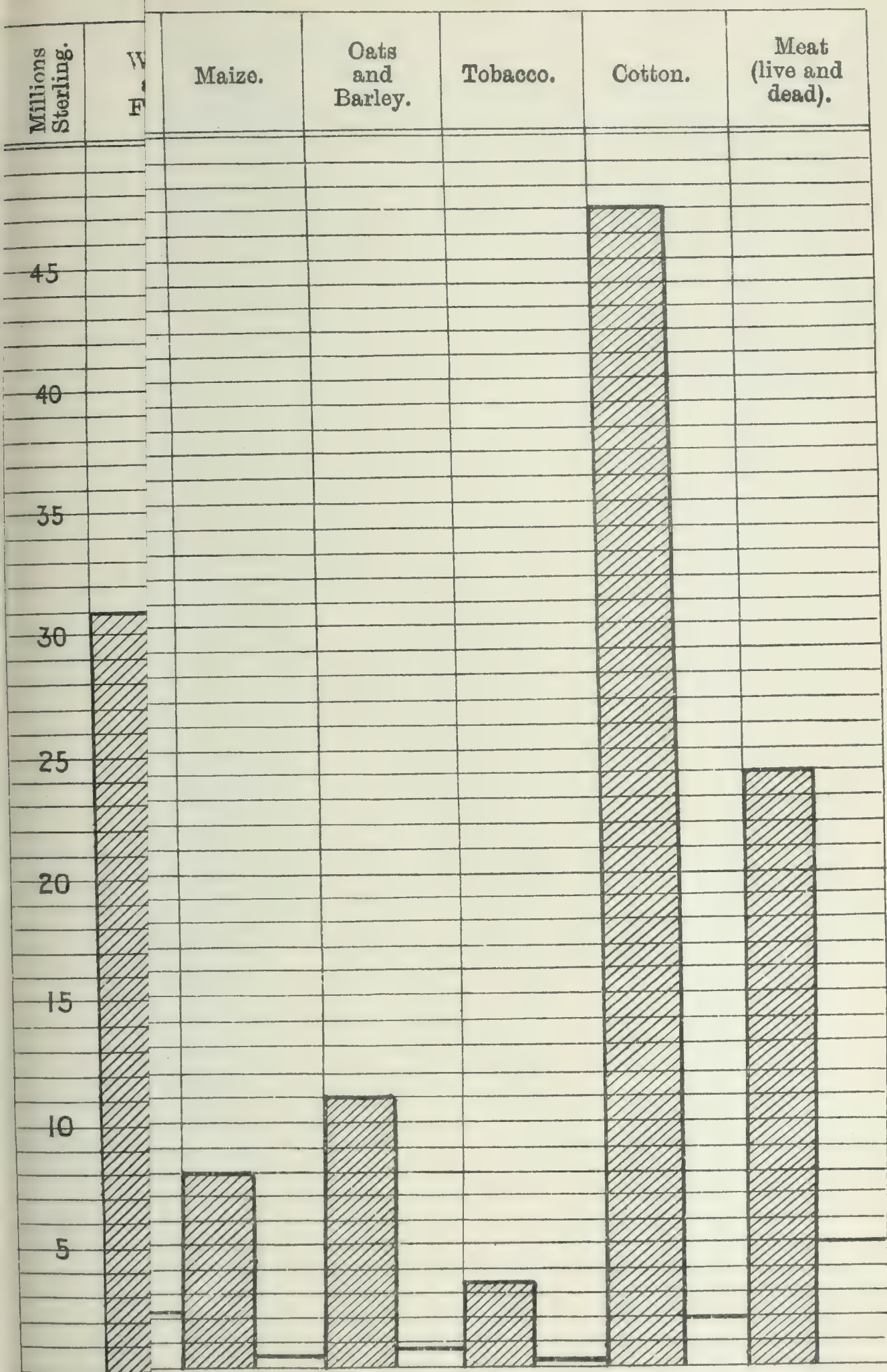
With Mr. Bourne the wish was clearly father to the thought, for unless several years' notice were given to foreign nations of our intention to cease trading with them, and unless steps were taken, and taken too upon a gigantic scale, to ensure the production in our colonies of certain articles of produce now chiefly imported from foreign countries, the cessation of foreign exports to Great Britain would speedily result in famine or famine prices. It would be folly to shut out the foreigner entirely until we can absolutely do without him, and to raise up a preferential duty against him, even though the colonies were left to export free of duty, would be to raise the price of the foods of the people as well as to induce him to retaliate, with the result that our manufacturing industries might seriously

CAN THE EMPIRE FEED ITS PEOPLE?

suffer. No, our first duty is to ensure an abundant supply of wheat and other necessities of life. Let us study from the accompanying diagram the relative supplies of our most important foods by our colonies and foreign nations respectively. In only two instances do we find that our colonies send us larger quantities than foreign countries—tea and rice. Let us next see, side by side, what countries we are depending chiefly upon for supplies of the other articles in the diagram, and what countries within the empire are capable of producing these supplies:—

CHIEF FOREIGN COUNTRIES NOW EXPORTING.	PRODUCE AND IMPORTS IN 1891.	COUNTRIES WITHIN THE EMPIRE CAPABLE OF PRODUCING EQUIVALENT OF FOREIGN EXPORTS.
United States $\frac{19}{40}$ Russia $\frac{6}{40}$	Wheat and Flour, £39,633,091.	{ Canada, India, England, Austral- asia, South Africa.
United States $\frac{18}{29}$ Denmark $\frac{1}{15}$ Argentine Republic $\frac{1}{28}$	Meat, £29,107,292.	{ Canada, Australia, New Zealand, United Kingdom.
Denmark $\frac{1}{3}$ Holland $\frac{1}{4}$ France $\frac{2}{9}$	Butter and Margarine, £15,149,386.	{ United Kingdom, Canada, New Zealand, New South Wales.
United States $\frac{1}{3}$ Holland $\frac{1}{6}$	Cheese, £4,813,570.	{ United Kingdom, Canada, New Zealand, New South Wales.
China $\frac{1}{5}$	Tea, £10,733,140.	{ India, Ceylon.
Central America $\frac{1}{3}$ Brazil $\frac{1}{6}$ United States $\frac{1}{17}$	Coffee, £3,435,287.	{ India, Ceylon, West Indies, Straits Settlements.
Germany $\frac{1}{2}$ France $\frac{1}{7}$ Holland $\frac{1}{12}$ United States $\frac{1}{20}$ Philippines $\frac{1}{20}$ Belgium $\frac{1}{28}$	Sugar and Molasses, £20,488,031.	{ Mauritius, West Indies, Straits Settlements, India, Queens- land, New South Wales, South Africa, Guiana, Honduras.
Japan $\frac{1}{14}$ Holland $\frac{1}{5}$ Germany $\frac{1}{23}$	Rice, £2,798,772.	{ India, Straits Settlements.
Roumania $\frac{7}{16}$ United States $\frac{1}{4}$ Russia $\frac{1}{5}$	Maize, £8,451,503.	{ New South Wales, Queensland, Victoria, Canada, New Zealand, South Africa, Honduras.
Russia $\frac{1}{2}$ Turkey $\frac{1}{10}$ Sweden $\frac{1}{13}$ Roumania $\frac{1}{13}$ France $\frac{1}{20}$ United States $\frac{1}{20}$	Oats and Barley, £11,514,021.	{ United Kingdom, Canada, New Zealand, the Cape, Tasmania, Victoria.
United States $\frac{5}{7}$ Holland $\frac{1}{11}$ France $\frac{1}{30}$	Tobacco, £3,422,886.	{ Ceylon, Straits Settlements, New South Wales, Victoria, Queens- land, Natal, the Cape.
United States $\frac{3}{4}$ Egypt $\frac{1}{8}$	Cotton, £49,428,751.	{ India, West Indies.

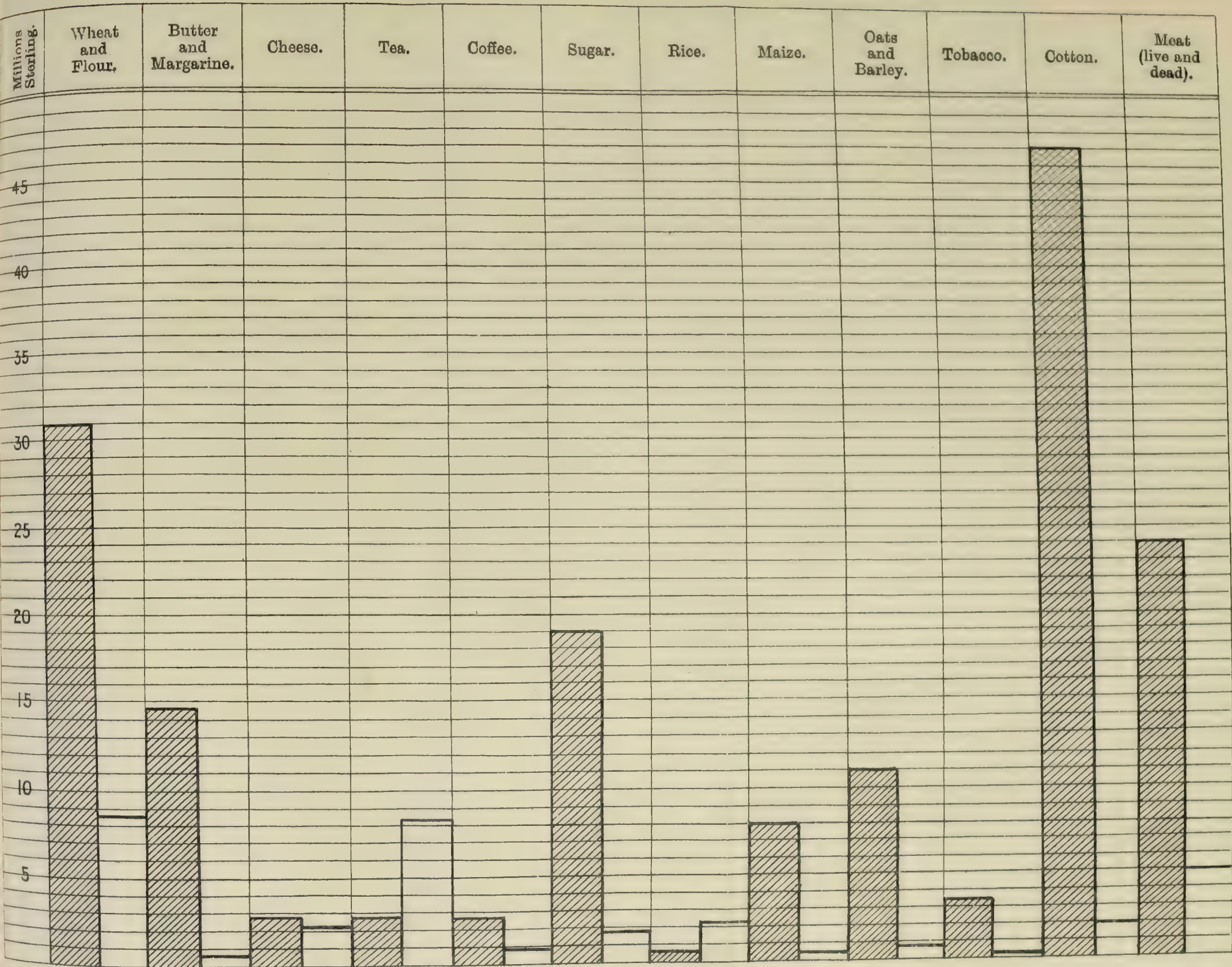
KINGDOM.



..... } For Twelve Necessaries.
..... }

ns show the Colonial Imports.

IMPORTS INTO THE UNITED KINGDOM.



£166,000,000 paid to Foreign Countries } For Twelve Necessaries.
£32,000,000 paid to British Colonies and Possessions

The shaded columns show the Foreign Imports. The plain columns show the Colonial Imports.

CAN THE EMPIRE FEED ITS PEOPLE?

It has been stated that the United Kingdom could produce all the wheat it requires. It is probable that if all the land now growing cereals and pulses—9,443,509 acres in 1891—were sown with wheat sufficient might be grown after the first year in normal seasons, but in that case we should be but robbing Peter to pay Paul, for it would be necessary to import all our barley, oats, beans, and peas. Let us, however, estimate the acreage necessary to grow all we consume of these foods. We shall deal with the figures of 1891 harvest, which represent an average year much better than those of 1892.

HOME-GROWN PRODUCE.

	Estimated Yield. Bushels.	Acreage.
Wheat and Flour (as wheat)	74,742,700	2,392,245
Barley	79,555,089	2,298,978
Oats	166,472,428	4,128,127
*Rye	1,684,144	60,148
Beans	10,694,376	359,039
Peas	5,777,445	204,972
Actual cereal and pulse acreage		9,443,509

IMPORTED PRODUCE, LESS EXPORTS.

	Bushels.	Acreage required <i>pro rata</i> to produce in United Kingdom.
Wheat and Flour (as wheat, 60lbs.) ..	166,444,284	5,326,000
Barley (54lbs.)	36,021,968	1,059,469
Oats and Oatmeal (as oats, 40lbs.) ..	46,145,436	1,183,216
Rye (52lbs.)	958,172	34,220
Beans (60lbs.)	6,852,755	228,425
Peas (63lbs.)	4,301,121	153,611
Total (including home produce)		17,428,450

The first noticeable feature of the above calculation is that as there are only 48,179,470 acres of cultivated land in the United Kingdom, even the four-course system, generally the most convenient of all for cereal cropping, would not enable us to grow grain and pulse to the extent of 17,428,450 acres, for the simple reason that there are 27,567,663 acres in permanent pasture. At the present time the corn and pulse acreage is nearly one-half that of the total acreage (grass, fallow, flax, hops, and small fruit excluded) of the cultivated land; it follows, therefore, that any extensive addition to the present corn area (9,443,509 acres) would be taken from the permanent pasture, so much of which tenants

* Rye is estimated, although a portion is consumed green.

CAN THE EMPIRE FEED ITS PEOPLE?

are forbidden under severe penalties to break up. The actual acreage over which we may assume corn is grown under rotation is (1891)—

Grain and pulse, as previously shown	9,443,509
Green crops	4,510,653
Rotation grasses	6,015,037
	<hr/>
	10,525,690
	<hr/>
Total arable under rotation	19,969,199

Let us assume, however, for the moment, that grain and pulse might be grown to the full extent of our present requirements. What area would be necessary? The calculations we have already made point to not less than 35,000,000 acres, of which one-half, 17,500,000 acres, would be in grain and pulse instead of 9,443,509. We say "not less" advisedly, for experience teaches us that it would not suffice to estimate calculations for cropping upon such a magnitude upon the basis of our present average yield. We therefore estimate that a further 2,500,000 acres would be necessary, of which 500,000 acres would be taken from the bare fallow, leaving 37,500,000 acres, and slightly more than 10,000,000 acres of permanent grass instead of as at present, 27,000,000 acres.

It will be recognised by practical agriculturists that a great deal of our permanent grass land is of very poor quality, and that when the wheat area began to diminish a few years ago it was the bad yielding land which was first seeded down to grass. Writers who are more patriotic than responsible often use the time-worn phrase that in England we grow more wheat per acre than the farmers of any other country. That statement is questionable even in its direct sense. The fact is that we can only grow wheat with any prospect of profit on our very best land, and it is not a fair comparison to make with other countries, the farmers of which cultivate such an infinitely larger acreage, and much of that of very inferior quality indeed. Under such conditions it is quite justifiable to make an allowance for diminished yield on the great bulk of the inferior land brought under the plough. Would 10,000,000 acres suffice for our hay supply and for the grazing of our dairy cows, our young stock, our feeding cattle and sheep; or would a better result be obtained by producing clovers, grasses, vetches, and other green crops on a grand scale? Eight and a half million extra acres of artificial grasses and roots, with the enormously increased yield of straw, and the offal from the extra grain produced previously imported as flour, would have to suffice for a loss of 17,500,000 acres of permanent grass. In the first place, we must notice the fact that a larger demand for farm labour would arise, wages would increase, and consequently the cost

CAN THE EMPIRE FEED ITS PEOPLE?

of production. This points to another fact, which is of course self-evident from the first moment we entertain a discussion of this kind, that British farmers would not dream of attempting to materially increase their corn acreage unless the price made it worth their while. Necessity overrules sentiment. But we are not dealing with probabilities.

There are other points which must be noticed in passing. In some districts pulse is often grown between two grain crops in the four-course rotation; in others, the rotation is five or six course, grain coming two years out of five. If it were possible to obtain the figures we should find that there were hundreds of thousands of acres of land included as mountain land in the returns, and therefore uncultivated, which would pay for cultivation under given conditions, and which might therefore be requisitioned if necessary. We have seen such land in many countries. Modern science has shown that land now described as heathpeat or waste, such as exists in almost every country, sometimes on a very large scale, might in many cases be brought into profitable cultivation, containing as it often does large stores of latent elements of fertility. A return of "good times" would induce landowners and farmers to utilise such soils, and to lay out the necessary capital in their improvement through the medium of drains, lime, phosphates, and potash. We have, however, to answer the question whether the acreage of grass left us under the above assumed conditions would suffice to provide us with meat, with the aid of roots and rotation grasses, to the extent

COMPARISON OF THE FOOD-PRODUCING VALUE OF TWO ACRES OF PASTURE GRASS AND ONE ACRE OF ROOTS, ROTATION GRASSES, AND GREEN CROPS, PLUS THE STRAW FROM ONE ACRE OF GRAIN.

TWO ACRES OF AVERAGE GRASS—DEPASTURED. DIGESTIBLE.

	Albuminoids or flesh formers. lbs.		Carbohydrates or heat givers. lbs.		Fat. lbs.
	504·0	....	1995·9	....	80·6
Total digestible solid matter			2580·5lbs.		
Clovers and rye-grasses ..	464·1	....	2016·0	....	100·8
Swedes and turnips	85·0	....	650·7	....	8·0
Mangels	18·4	....	168·0	....	1·5
Cabbage	22·4	....	64·8	....	4·4
Other crops	23·3	....	90·7	....	3·4
Straw	11·2	....	403·2	....	5·6
	624·4	....	3393·4	....	123·7
Total digestible solid matter			4141·5lbs.		

CAN THE EMPIRE FEED ITS PEOPLE?

of one-half the acreage of the permanent grass which had been ploughed up, plus the extra straw. In order to answer this question we have endeavoured in the preceding page to show by comparison the relative feeding value of the grass grown upon two acres of land and the arable crops grown upon one acre, with the addition of an average acre of straw. The estimates of the arable crops are chiefly based upon the relative area of the various green and root crops, as shown by the agricultural returns and upon the analyses of Wolff. Thus it appears that, estimated by the relative nutritive value per acre, and upon the basis of the present average yield of each crop, the roots, rotation grasses, and other green crops, and the straw from the extra-grown grain, would not keep so much live stock as pasture grass. We must not, however, infer that we could not feed the necessary live stock we have at present, or even many more. Actual existing practice proves that we can keep an enormously increased head by the aid of purchased feeding stuffs. In Lancashire it is no uncommon thing to feed fifty large cows upon 80 acres of land. This heavy stocking immensely improves the yield of grass, roots, and corn, so that just as our effort to keep more stock per acre resolved itself into a largely extended system of purchase of imported feeding stuffs, as a necessary supplement to the food produced at home, so would they result in largely increased crops. Land is impoverished by the constant sale of the crops it yields where no adequate return is made in manure. Its fertility is maintained by the consumption of those crops upon it, but it is increased by the further consumption of purchased foods. So long, therefore, as we could obtain linseed and cotton cake, cotton seed, maize, beans, peas, lentils, bran, and millers' offal, in unlimited quantities, so could we produce what corn, meat, and dairy produce we require. Further aid might be given by the importation of hay and straw, an already existing business, but much might also be done by the development of peatmoss as a substitute for straw, which is a food too valuable to be utilised as it has been for generations. The British farmer, then, in order to provide the food of the people would have to import food for stock and artificial manure. We may take it, therefore, that however high he farmed, and however much waste land he brought into cultivation, he could not provide for our subsistence without the aid of the products of other countries; and the British people existing in these islands are consequently not independent of the outside world, although, as we have shown—were the colonies members in the firm of Britannia and Co.—the whole of the pastures could by the general development of resources, as actual as they are vast, assure that independence which it should be the desire of everyone who acknowledges the British flag to see attained.

CAN THE EMPIRE FEED ITS PEOPLE?

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SILK : ITS HISTORY AND ITS INDUSTRIES.

COMPILED BY ARTHUR EDWIN PIGGOTT, F.S.A.A.,
SECRETARY TO THE SILK ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE SILKWORM, COCOON, REELING, THROWING, DYEING, WEIGHTING.

“SILK is to the fabrics what gold is amongst the metals and the diamond amongst jewels,” and is the beautiful shroud wherein the insect which produces it envelops itself before its death or metamorphosis, at once the crowning point and end of one stage of its existence. It is an “insect fibre” differing in chemical composition, and in texture and method of production from the “animal fibres” (wool, fur, hair, gut), but still emitting when burnt a peculiar pungent odour. The silkworm presents the interesting spectacle of an endless circle of generation that goes very deeply into the mystery that surrounds all life. Naturally, one must begin with the egg—and yet the egg is not the production of the insect into which it immediately develops. There are four distinct planes of existence necessary to produce the whole, or from a worm to make a worm, the fourth or last stage of the insect being very different from and yet absolutely essential to the first. The eggs from which the silkworms emerge are very minute, called in France “graine,” and requiring about a hundred to weigh a grain. The hatched worms, though very small at first, have a rapid growth and an increasingly voracious appetite; are fairly hardy, but require a temperature not less than 62° nor above 78° Fahr. Within this range a low temperature produces a slower growth, but with an increased vigour and an ultimately larger cocoon. As though somewhat to foreshadow the ways of the fashionable circles in which their product will ultimately be used, these little spinners change their own dress no less than three or four times during their short lifetime of somewhat less than one month.

The growth of the worms which produce the ordinary silk of commerce during their larval stage is thus stated by Count Dandolo.

Description.	Weight per 100.	Size in Lines. Twelve lines 1 inch.
Worms newly hatched ..	1 grain (an increase of 100 per cent on the egg stage)	1
After 1st moult	15 grains	4
„ 2nd „	94 „	6
„ 3rd „	400 „	12
„ 4th „	1,628 „	20
Greatest weight and size..	9,500 „	40

SILK: ITS HISTORY AND ITS INDUSTRIES.

During this period a vast amount of food has been consumed, that from the hatching of 1oz. of "graine" or eggs, which would produce about 40,000 worms, requiring about 1,362lbs. gross of mulberry leaf, which, after crediting the unconsumed fragments removed in the litter, would leave about 772lbs. net. The silkworm is provided with two glands or sacs running along the sides of the body and opening by one orifice, the spinneret or seripositer, on the upper lip of the worm. These glands gradually become full of a clear viscous fluid, and when the caterpillars are mature they find a suitable place where they may produce their cocoon, which operation consists of ejecting from both glands simultaneously with a rotary motion of the head, which is kept up continuously for about three days, a very fine and delicate thread about 600 to 1,000 yards in length. This thread is the silk of commerce, and is of a white or yellowish colour in a ball or cocoon, oviform in shape and varying in size and weight, generally an inch to an inch and a half in length and about half that measurement in diameter. The weight, including the pupa or chrysalis, ranges from about 15 to 50 grains according to the class of worm producing the cocoon. Here in this silky chamber a metamorphosis takes place, and at the end of eleven to fifteen days instead of a worm a radiant moth emerges. It is in this stage that the little insect, which indeed seems to have been formed for love only, completes the little cycle of its existence. The sexes pair, and in so short a time as from four to six days the female lays her eggs—five hundred, a numerous progeny. There being no more planes of visible existence for the little insects to attain to they die, and though in so small a degree as in that of a moth, the mysterious vital principal is withdrawn from mortal gaze, and the cycle which ended as it were here is commenced anew in the tiny eggs. If, however, the moth were allowed to eat its way through the cocoon, the commercial value of the cocoon would be spoilt, therefore, except in the case of such cocoons as are retained for the production of eggs, the pupa is killed by being subjected to heat within two or three days of the completion of the spinning of the cocoon, which would be within about a week from the first commencement of spinning.

It is unnecessary here to do more than mention the fact that the silkworm is subject to serious diseases, which have been the subject of much careful study by many scientific investigators, and in 1865 the now famous M. Pasteur was commissioned by the French Government to inquire into and report on the matter. The cure he proposed was one which is not without its lesson for men as well as worms, namely, the isolation of cases of infection, the taking care to ensure proper sanitary surroundings, and the providing that the stock from which the eggs were obtained was healthy, in which case

the offspring would have a reasonable chance of being healthy also. Given, then, a healthy stock and healthy worm, we have as a natural result a good cocoon containing, as previously stated, as much as 600 to 1,000 yards of a fine, delicate thread, of which, however, only about from 300 to 360 yards are reelable.

To obtain 1lb. of reeled silk, it has been calculated that 12lbs. of cocoons are required (about 250 cocoons weigh 1lb.); that 2,800 worms would be necessary to produce that amount of cocoons, and that to feed these caterpillars 152lbs. of mulberry leaves would be used. The length of silken thread which may be obtained from a single cocoon is about 300 yards, though some have been known to yield twice this quantity; but, taken on an average of 300 yards to the cocoon, the pound weight of reelable silk filament as produced by the worms would, if stretched out, reach the prodigious length of about 511 miles.

Reeling is a comparative simple though delicate process, and consists of first stripping the cocoons of the surrounding floss, and then placing them in a basin containing water heated sufficiently to slightly soften the natural gum of the thread. The cocoons are then stirred briskly with a small whisk until any adherent floss is removed, and the useable thread can be drawn out. The reeler then takes as many filaments as may be required to make into a thread, and passes them through a guide in the machine, the principal part of which consists of a reel some 60 to 80 inches in circumference. After drawing through another guide filaments from an equal number of cocoons, the two threads so formed are temporarily crossed or twisted together, making strands of a two-cord thread. This is continued for a short space, and the threads are separated and passed through other guides, and finally attached to the reel. This crossing produces a smooth, round thread, and prevents knottiness, as would otherwise be the case in its soft condition. One of the peculiarities of the filament is that as it approaches the centre or skein covering the chrysalis it becomes thinner and thinner, and to preserve the even character of the thread that is being reeled it is necessary for the operator to continually introduce a filament from another cocoon to compensate for the thinning off which is taking place; so that supposing a reeler started, say, with six cocoons to the thread, before these are fully wound perhaps nine may be in use to ensure the thread reaching the reel in uniform thickness. In this lies the art of reeling, and will prevent it from becoming at any time a merely mechanical process.

This reeled skein of silk is the "raw" silk of commerce. Its fineness is determined by the weight in a given length (generally 400 revolutions of a special reel), and is termed "denier," of which 200 equal $16\frac{1}{2}$ grains. It is imported into this country in "books"

SILK : ITS HISTORY AND ITS INDUSTRIES.

or bundles, packed in bales weighing from 100lbs. upwards, principally from China, Japan, India, and Italy.

The raw silk has to pass through five further processes, termed throwing, before it is ready for use in the loom. First the silk must be transferred to bobbins, after which it is cleaned by being transferred from one bobbin to another, passing on its way through two fixed paralleled plates so adjusted that any knot or irregularity in the silk is at once detected and the bobbin stopped. The third process is doubling, or putting the threads from two or more bobbins on to one, but without twisting; while the fourth process is to spin or twist the threads together. The fifth process is spinning the silk into "tram," "organzine," or whatever kind of corded thread is required, the technical terms for (tram) the union of two or more single threads untwisted, doubled in one operation, and subsequently twisted together, forming thereby a more compact thread, and used chiefly for weft, or cross thread, in weaving; while "organzine" is the union of two or more single threads separately twisted in one direction, and then doubled, as in tram, and retwisted in the reverse direction. It is used for the warp, or longitudinal threads of a fabric. The object of twisting the threads is to give them compactness and strength, and ensure their better working in the loom; but the process is more successfully carried out in that adopted in the case of cotton, where the two operations of twisting and doubling the single threads composing the double threads are done simultaneously in one operation.

In the process of "boiling off" silk preparatory to dyeing it, the hanks of tram or organzine are placed in boiling water containing soap, which effectually removes the natural gum and colour and any impurities, when after further treatment, including squeezing, it is thoroughly rinsed in water and is ready for treatment by the dyer; it has, however, lost considerable weight by this process, at least 25 per cent, and it is at this point that the consideration arises as to the "weighting" of silk.

Mr. B. T. Cobb says that—

Formerly, in the case of black silk, manufacturers were willing to allow the dyer to employ a dye which caused him to return them the material with a loss of this weight, or at most they only required him to send it back at the weight at which he received it. But for some years they have required it to be made heavier, and the weighting has more recently very much increased. In silks for ribbons, and broad silks, double weight is often thus given; in silks used in the manufacture of fringes, four times the original weight; and in the case of certain silks exhibited at the Silk Exhibition of 1873, six times the natural weight had been attained. Ordinary unweighted black is dyed by the use of a salt of iron and logwood; but for the weighted silks a quantity of iron salts and other chemicals, gambier, chestnut, or some wood containing a large amount of tannin, is employed. The black dresses of our grandmothers were often, after years of wear, handed down to their children and grandchildren;

SILK : ITS HISTORY AND ITS INDUSTRIES.

but now that the weighted silks are employed, great complaints are made by the ladies that their dresses are worn out so rapidly. On the other hand, one effect of the weighting is to make the thread of silk cover a larger space than it formerly did, and by these means produce a corresponding reduction in the cost of a given length. In these days of silk weighting vast quantities of continental silks are weighted, some to an alarming extent.

Mr. Thomas Wardle, of Leek, the president of the Silk Association of Great Britain and Ireland, says :—

I have during the last few years analysed scores of French, German, and Swiss black silks, and I have in every instance found both warp and weft more or less chemically weighted with adventitious mineral and other matter. In the cheaper silks the degree of weighting is generally as much as from 30 to 50 per cent upon the warp, and from 60 to 100 per cent upon the weft as “heavy souple.” In ribbons the weighting is carried to a much greater extent upon the weft, even up to the almost incredible extent of 600 (six hundred) per cent, or 11lb. of silk weighted to 6lbs. I shall be glad, he adds, to show samples of such silks to anyone who wishes to see them. None but an expert can detect this falsification, and even he cannot appraise its extent except by analysis, appearances being so deceptive. Is this merit? The wholesale buyer himself cannot tell the amount of sophistication, but he may be indirectly responsible for it when he encourages low-priced production, or when he sets off German against Swiss, and Swiss against French. Of this I have heard something in France.

ORIGIN—CLASSICAL; INTRODUCTION TO EUROPE—MEDIÆVAL; THE SILK PRODUCING AND MANUFACTURING DISTRICTS OF THE WORLD.

SILK in the Chinese language is called *se* or *ser*, the latter term corresponding with that used by the Greeks, who in all probability derived both material and name from the Chinese. These industrious people 2,600 years B.C., and probably earlier, reared silkworms, and produced from the thread rich and gorgeous fabrics. The ancient merchants of China, we are told, made the city of Turfan, in Little Bucharía, the chief *entrepôt* of their silks, and thither the Western caravans came and traded. Turfan was the principal town of the Seres of Upper Asia, or of the Serica of Ptolemy, between the Ganges and the Eastern Ocean, from which is derived the Roman terms *Serica vestis* and *Sericum* (silk).

Silk was a very precious commodity in Europe in the days of the Emperor Aurelian, and was said to be worth its weight in gold. It had been in use for a very long time before any certain knowledge was obtained as to what it really was, or from whence it came. By some it was considered a vegetable substance derived from the leaves of trees and flowers, or a delicate kind of wool or cotton; and until the introduction of silkworms into Constantinople in the sixth century, no one there knew that the beautiful material was the product of what Aristotle so long before had described as “a great worm which has horns, and so differs from others.” Aristotle also gives to Pamphile, the daughter of Plates, the honour of first reeling on bobbins, for subsequent weaving into material, those silken threads

SILK : ITS HISTORY AND ITS INDUSTRIES.

which made the island of Cos so celebrated for its beautiful silk. Marco Polo says that the "Golden Fleece" which led Jason and his companions so far on their travels was nothing but a hank of raw silk, while one Ammianus Marcellinus writes of "groves which produce fleeces of downy wool that, sprinkled with water, is combed off into thread and woven into sericum."

Mrs. Lynn Linton, in an interesting article contributed to *The Queen* newspaper, entitled "Three Lengths of Silk," mentions some curious statements in regard to silk in the days of Rome's supremacy, at which time we find, for one thing, silk thread recommended for the tying up of blood vessels, a surgical accessory still in use and appreciated. In the reign of Tiberius, says Mrs. Linton, women of rank only wore "oriental sericum." Men were forbidden by the Senate to indulge in such effeminate extravagance, but they wore the lighter Coan silk, and "subsericum" was allowed. This subsericum was silk mixed with cotton or wool, as we use at the present day. A garment made wholly of silk and called holosericum was occasionally worn, and it was brought against Heliogabalus as a proof of his infinite wickedness and unmanly vices that he wore such a garment. Aurelian refused his empress a silken shawl, such as her soul lusted after, on the plea of its costliness—weight for weight in gold; but Caligula had silken curtains to his throne. It was reported, too, that Julius Cæsar had silken curtains to add to the glory of his triumph, and whenever that same Emperor, who made his horse a consul, appeared in public, he wore silk in some part of his dress, and sometimes a garment of silk and a cyclas, that is, "a circular robe worn by women, to the bottom of which a border was affixed inlaid with gold." It was usually made of thin material, probably of Coan silk, and Alexander Severus, in his vain attempts to arrest the luxury of his age, commanded that women should possess only one cyclas each, and that it should not be adorned with more than six unciae of gold.

Septimus Severus, he who died at York, had no garments all of silk, and few of subsericum or mixed material, which were used, by the way, as presents given by men to those whom they wished to favour. This, too, was a custom which about a hundred years later Aurelian discountenanced and discontinued; but though his successor, Tacitus, following on the same lines, made it unlawful for men to wear silken garments unmixed with baser and cheaper material, Carinus, a little later, gave both ornaments of gold and silver, as well as these garments of holosericum, to Greek artificers, wrestlers, players, and musicians.

By the Rhodian law, when these whole-silk garments, or webs, were preserved from wet in shipwreck they paid a salvage of 10 per cent.

SILK : ITS HISTORY AND ITS INDUSTRIES.

In the account given of the nuptials of Theagenes and Chariclea, the ambassadors of the Seres came bringing the thread and web of their spiders, one of the webs dyed purple, the other white; and when Honorius was appointed consul for the fourth time his robe "received its colour of Tyrian purple from the Phœnicians, its woof of silk forming stripes and figures from the Seres, and its weight of Indian gems from the river Hydaspes." On his wedding with Maria, the nuptial chamber was decorated with curtains in yellow silk. Claudian also speaks of an ape "ludicrously attired in a silken jacket." Silk, then, was both known and used in the later days of Rome. It was the sign of corruption and the expression of effeminacy. It had to fight its way into general acceptance against all the forces of simplicity and virtue which were associated with wool and cotton, and arrayed against silk. But the wheel rolled on, and the prohibitions and prejudices were finally removed, till now the very beggar-woman at your door has something of silk about her, and the material which an emperor refused an empress the vagrant and the pauper toss on to the dust heap when they have done with it.

It may be interesting to state that the introduction of the silkworm to the Western World is said to have been accomplished in the sixth century, in a somewhat romantic manner. Two Nestorian monks of the Order of St. Basil, Christian missionaries in India, had penetrated to the country of the Seres (China), and there gained information as to the habits and operations of the silkworm, and of the art of utilising its product in the manufacture of rich and beautiful fabrics. Fired by an ambition to introduce to "true believers" so valuable an industry, enjoyed up to then only by the heathen, as well, probably, with the idea of securing some personal benefit, they journeyed to Constantinople and represented to the Emperor Justinian that they had discovered the true origin of silk, and how it was prepared and manufactured. Commissioned to undertake the transport of a quantity of these wonderful worms to Constantinople, and fortified with liberal promises, they ultimately managed to convey the eggs of the parent moth in the hollow stem of a cane. The eggs were duly hatched, and the larvæ fed on the leaves of the wild mulberry, and from this source it is believed that the cultivation of the silkworm spread throughout the southern countries of Europe.

Constantinople having secured the monopoly of manufacture, silk rose from £4. 15s. 9d. per lb., the price fixed in the time of Justinian, to six pieces of gold for 1oz. weight of the precious fabric, or eight times more than in the days of its importation—a point which may be freely surrendered to the ardent advocates of "Protection" in modern times. At a later date negotiations were opened by Maniak, or Maniaces, a prince of Bokhara, with Chosroes, King of Persia, for a renewal of the carrying trade between China and Persia, including the supplying of Persia with silk. Matters, however, did not proceed satisfactorily, and Maniak turned his attention to Constantinople, where he found the silk industry flourishing, and where he bore testimony to the equal character

SILK : ITS HISTORY AND ITS INDUSTRIES.

of Roman silk as compared with that of China. Subsequently Venice, "the bride of the Adriatic," became an important channel through which Western Europe was supplied with silk.

Much might be told us by a student of mediæval history as to the uses and value of silk in those times, and of the gorgeous robes and vestments in which the queen of textiles played so important a part—on the throne, in court, in society, in church, and even in the tomb; for in the tomb of St. Cuthbert (seventh century), when opened in A.D. 1827, "his skeleton, which was still entire, was wrapped in five robes of embroidered silk;" the Church, which in early Christian times had thundered its denunciations against the article and its wearers, having become in time its most excessive users!

On the authority of Mrs. Lynn Linton, we are told that—

In Hereford Cathedral is a charter with the bulla or seal attached with silken threads, dating probably about the seventh or eighth century, and that about A.D. 1000 the Danish kings began to use silken threads wherewith to attach their waxen seals to their charters; old bindings of books and MSS. are often of red velvet; velvet is introduced into old armour, of which a specimen is to be seen at Treves; and in the inventory of books possessed by Charles V. of France we find as bindings "soie," silk; "veluyau," velvet; "satannin," satin; "damas," damask; "taffetas," taffety; "camocas" (?), "sendal," and "drap d'or," cloth of gold. A shred of cloth of gold in the Museum of Antiquities at Leyden is said to have been found in one of the Etrurian tombs; the gold was a compact covering over bright yellow silk.

Gradually the production of silk spread over Europe from the time when the enterprising monks smuggled the eggs into Constantinople.

Again to quote Mrs. Linton:—

In the ninth century the Moors took the worm and the black mulberry tree into Spain. In the twelfth Roger, King of Sicily, took also both tree and worm into Sicily. In the thirteenth and fourteenth Calabria took up the industry, and thence it spread all over Italy; and under Amadeus of Savoy and Sybille de Bauge, to the foot of the Alps. In the beginning of the fourteenth century Pope Clement went to Avignon, and planted there the first mulberry tree. In the fifteenth it was brought to Dauphine by the lords who had followed Charles VIII. to the conquest of Naples. In the sixteenth it flourished, under Henry IV. and Oliver de Serres, in Languedoc, Provence, Tourraine, and the royal gardens of the Tuilleries. In 1548 the black mulberry tree was brought to England from Italy, and in 1666 the white from China. But we were never able to effectively breed the worm, which indeed does not flourish where the mulberry tree has only one crop. "Where the vine groweth there also cometh silk" is an old proverb, to be taken with some grains of salt, but yet is on the whole true. But if we could not breed we could weave.

Stowe says that "we have had the manufacture here since the fifth year of Elizabeth, when the knowledge of it was gained from strangers." But of the silk trade in Great Britain, its "ups" and its "downs" (with so many of the latter!), we shall deal subsequently.

SILK : ITS HISTORY AND ITS INDUSTRIES.

CHINA.

CHINA is the accredited birthplace of the silk industry, both of produce and manufacture; and in Shang-tung, the country of Confucius, it first flourished. Spreading thence to the Corea, in Eastern Asia, it ultimately reached Japan in the years before Christ 600 or 700.

About 400 A.D. we find that silk was produced in Northern India, passing from Khotan to Bokhara, Khiva, Samarcand, &c. In 600 A.D. the industry was established in Persia and then in Turkey, thence through Greece (being domiciled at Corinth, Thebes, and Argos) to Sicily and Spain, migrating to Italy and France; while in comparatively modern times America (particularly the State of California) has been added to the list of the silk-producing countries of the world. Of these we find that from China the exports from Shanghai in 1891 were a total quantity of raw silk amounting to 6,501,000lbs., while for the same period from Canton was exported a total quantity of raw silk amounting to 2,642,200lbs.

JAPAN.

JAPAN for the year 1891 exported from Yokohama a total quantity of raw silk amounting to 6,586,800lbs. Shinshiu, in the centre of the main island, is the principal sericultural district in Japan, and contains about 2,000 square miles; plantations of mulberry trees are everywhere to be found, and during the season the chief labour of the inhabitants of this region is devoted to the tending of the silkworm. At present Japanese silk is marred by defects in variations of colour and want of uniformity in sizes and cleanness of thread, defects which can all be removed by a greater care and improved machinery in winding.

INDIA.

THE exports of raw silk from Calcutta in 1891 amounted to 503,800lbs. Upon this subject Mr. Wardle says:—

We have not statistics to guide us in forming an opinion as to the quantity of silk raised in several other silk-growing quarters such as Siam, Annam, Tonquin, Cashmere, Bokhara, and other Central Asia districts, the total amount of which in these places must be considerable. I have no doubt that when the sericultural resources of Cashmere are developed, that country will prove to be one of the most important silk-growing countries of the world; considerable progress has been made, and Cashmere at the present moment offers to European sericulturists and capitalists singular opportunities for successful silk growing. The climate is perfect, the cocoons of the *Bombyx Mori* are found wild in the jungles, and numerous enough to induce the natives to pay rents for the privilege of collecting them. The prospects of a successful systematic sericulture there are, I feel sure, very bright, but those who go out should possess a thorough knowledge of European methods of sericulture.

SILK: ITS HISTORY AND ITS INDUSTRIES.

CENTRAL ASIA.

THERE are eight governments or provinces in the Caucasus in which sericulture to a greater or less extent prevails, Elisabethpol, Bacou, Zacatal, Koutäis, Tiplis, Erivan, Kars, and Dagestan. On the borders of the Caspian and Black Seas, and from Mount Taurus to the great chain of the Caucasus, all the inhabitants, small and great, occupy themselves in sericulture. The most important province is Elisabethpol, which comprises the district of Noukha, Agdache, &c., and is the great sericultural centre of the Caucasus.

From 1850 to 1863, Transcaucasus has annually produced 19,800,000lbs. to 21,560,000lbs. of undried cocoons, which gave about 1,078,000lbs. of raw silk. The total production for this district for 1891 was estimated at 154,000lbs.

THE LEVANT.

TURKEY in Asia and Turkey in Europe, Anatolia (Brutia). Sericulture here, though retarded somewhat by obstacles caused by the financial administration of the country and disease of the silk-worm, yet shows progress, the harvest of cocoons producing in 1891, in Brutia and other localities, a quantity of raw silk equal to about 297,000lbs., almost the whole of which was exported to Italy and France.

In Syria the harvest of cocoons in 1890 was equal to about 10,208,900lbs., and after reserving for seed 319,000lbs. of cocoons, the remainder yielded a quantity of raw silk equal to about 858,000lbs., while the production for the year 1891 amounted to 638,000lbs. The eggs, as is usual, were provided by the islands of Corsica and Var.

In Salonica, Volo, Adrianople, and Roumalia, the harvest of 1890 was about the same as in the preceding year, and was estimated as follows:—

	lbs.
Salonica and Macedonia, dry cocoons	550,000
Volo and Thessaly ,, 	264,000
Adrianople and Roumalia ,, 	242,000
	<hr/>
	1,056,000

Equal to a production of raw silk of 264,000lbs., or 4ozs. of raw silk per lb. of cocoons, with a similar amount for 1891.

In Greece, the annual production of undried cocoons is a stationary one of about 660,000lbs. This industry reached its climax about the middle of the present century, when the production of cocoons was about 4,400,000lbs., producing 330,000lbs. of raw silk, or 1oz. 3drs. per lb. Since the disease epoch it gradually lost its importance, and for several years past the production in the two silk provinces

SILK : ITS HISTORY AND ITS INDUSTRIES.

of Messina and Lacedemonia has not exceeded 39,600lbs. of raw silk, of which half is used locally and the other half exported to Marseilles.

In Cyprus, the silk crop in 1891 was equal to about 77,574lbs. of dry cocoons. A small proportion only of the cocoons is converted into raw silk in the island, and that is used almost entirely for local consumption. Owing to the want of proper machinery and skill on the part of the winders, the silk produced is of a coarse and uneven description and quite unsuited to the European markets.

In Nikosia, the capital of the island, there is a large cottage industry in the manufacture of silk for dresses, handkerchiefs, scarves, &c., which are used locally. Considering the coarseness of the raw material, it is surprising what a pretty result is obtained from the rough looms.

WESTERN EUROPE.

ITALY.—The first town of the Italian continent to produce textiles of any importance was Lucca. It is mentioned in this connection in a manuscript so early as 1248. Manufacturing was carried on there to an important extent; they despatched their products to Paris and London, but commerce and industry were soon interrupted by civil wars of a sanguinary character. Owing to this, many clever workmen quitted Lucca and settled in the neighbouring towns. Milan, Florence, Bologna, Venice, and Genoa offered refuge to the fugitives and laid claim to their skill. In the year 1309, thirty families of silk weavers thus emigrated to Venice, whilst other towns of Italy got a similar profitable increase some years later in 1314. Italy is the chief producer of raw silk after China, the harvest of cocoons in 1890 reaching the enormous quantity of 89,703,702lbs., yielding in raw silk some 7,574,600lbs. The production of raw silk for 1891 was 7,062,000lbs. The chief centres of production are Piedmont, the Marches of Umbria, Emilia, and Lombardy. The persons engaged in rearing the silkworm are stated to have been steadily increasing for several years; they numbered in 1890, 585,350.

Spain produced in 1891 a quantity of raw silk amounting to 198,000lbs., and it is to this country that the disciples of Izaak Walton have to look for silkworm fishing gut, "*hijuelas*" (*file de pêche*), of which Murcia possesses the monopoly over the world, and destroys annually over 220,000 to 254,000lbs. of silkworms in its production.

In Austria and Hungary great attention is being paid to the cultivation of the mulberry tree, and to sericulture generally; and each year the Government devotes a sum of money to the purchasing of cocoons. The quantity of raw silk produced in 1891 amounted to 618,200lbs.

SILK : ITS HISTORY AND ITS INDUSTRIES.

FRANCE.

THIS country produced an amount of raw silk in 1891 of 1,245,200lbs., of which the major portion came from the Departments of Gard, Ardeche, Drome, Vaucluse, and Var. The number of sericulturists in France is computed to be over 142,000. Despite her large production of the raw material, France has to import the same to a considerable extent in order to supply the demands of her vast industry. In a recent United States consular report from Lyons it is stated that the French consumption of raw silk amounts to about 9,918,000lbs. per annum, the value of which is estimated at from £10,000,000 to £12,000,000. If the value of the wool, cotton, and other materials used in mixed fabrics be added, the total value of the raw materials used in the French silk industry amounts to £16,000,000. France itself produces about one-eighth of the raw silk consumed, the rest being imported from Italy and Asiatic countries.

The total value of manufactured silk produced by France is estimated at from £24,000,000 to £26,000,000 per annum, the total production of the world being £64,000,000. France thus produces about two-fifths of the whole, the total number of silk looms in France being estimated at 230,000. The exports of French silk goods amounted to about £10,000,000. More than two-thirds of the whole amount exported is purchased by England and the United States; Swiss and German firms are, however, serious competitors in the silk industry.

The import of foreign silk goods into France has increased of late years, and now amounts to £2,320,000, of which Switzerland furnishes light all-silk articles made of Italian silk, and England a special description of plushes with some Macclesfield and crape goods.

Lyons is the most important silk centre, not only of France but of Europe, and we learn from information supplied by the United States Consul above quoted—

That during the fourteenth and fifteenth centuries there were a few isolated looms in Lyons. In 1542 the total number of persons employed in the silk industry was 12,000. The seventeenth century was one of great prosperity for Lyons. Many important improvements were made in the processes of weaving, dyeing, and finishing, and many new articles were produced. At the time of the revocation of the Edict of Nantes (1685) Lyons possessed 10,000 looms for broad goods and 8,000 looms for ribbons and galloons. Within a few years all but 2,500 of these were driven out of the country. The eighteenth century became the most brilliant in the history of Lyons for the production of the richest kinds of silk goods. The superiority in artistic taste and execution soon enabled the Lyonese to reconquer the markets of the world. The number of looms, which was 9,000 in 1750, had risen to 18,000 in 1789. Then came the Revolution, and Lyons industries were for the time being completely ruined, and the nineteenth century was begun with but 3,000 looms. During the first decade of this century Jacquard's looms came into use. The cost of brocades was greatly diminished,

SILK: ITS HISTORY AND ITS INDUSTRIES.

they were brought within the reach of the middle classes, and their consumption was greatly increased. During the last forty years the Lyons silk industry has witnessed many important changes. Among these may be cited the persistent efforts of the manufacturers to drive the looms out of the city into the country, to take them out of the control of the individual workman and mass them in factories; the introduction and perfection of dyeing in the piece, and of new methods of printing and finishing; but most important of all, the introduction and expansion of the power loom. The number of hand looms is now about 80,000, of which over 60,000 are scattered in the country districts. The number of power looms, which was about 6,000 in 1873, is now nearly 25,000, almost all of which are in the country round Lyons within a radius of seventy-five miles. The value of silk-mixed power-loom goods has increased in the same proportion as the number of power looms, and is now about £6,000,000 per annum. The total production of the Lyons silk industry averages about £16,000,000 per annum. The quantity of goods produced is now greater than ever before, and constitutes two-thirds of the production of France and one-fourth of the total production of the world.

Amongst the various goods which are now being woven by the power looms in Lyons are the following:—

Pongee	Raw silk warp.....	Spun silk tram.
Batavia	” ”	” ”
Ribbed cloth	” ”	Cotton tram.
Umbrella cloth.....	” ”	” ”
Scarves	” ”	Spun silk tram.
Pocket handkerchiefs	” ”	” ”
Damask	” ”	” ”
Brocades.....	” ”	” ”
Satins, China cloth, crepe de chine, gauze, handkerchiefs,		
muslins, grenadine, lining.		

Of other silk centres in France brief mention may be made. Tours at one time held the premier place, and was of importance in the fifteenth century, at present, however, employing only about 1,000 looms, with an annual production of £240,000. Avignon (where the industry was established and fostered by the Popes) and Nimes have now but an insignificant silk trade, while at Paris and district some 25,000 looms are employed in the weaving of silk and silk-mixed goods, principally galloons, fringes, cords, trimmings, &c. Calais and Saint Pierre les Calais is the home of nets, tulle, and laces, with an annual turnout valued at £2,000,000. Roubaix has within recent times become the centre of an extensive mixed-silk industry. The braids of St. Chamond have a wide reputation, and have been the means of restoring prosperity to a declining town. St. Etienne is the chief seat of the ribbon-weaving industry, which was established about the beginning of the seventeenth century, for in 1605 there was an association of ribbon workers for mutual support. The first looms used were only capable of making one ribbon at a time, but in 1760 a machine from Bâle, making several at the same time, was introduced, followed in 1793 by a loom for double-sided velvet ribbons. On the authority of the *Textile Zeitung* we learn that St. Etienne productions in 1889

SILK : ITS HISTORY AND ITS INDUSTRIES.

exceeded in value 103,000,000 francs (about £4,120,000), three-fourths of which were exported. There are at present in St. Etienne, not including the 17,000 to 18,000 looms which belong to the *passementerie* manufacturers, about the same quantity in the possession of the workmen, which represent a capital of about 27,000,000 francs. The manufacturers themselves possess 5,000 looms, valued at 7,500,000 francs, to which 1,000 francs per loom must be added for the fitting up of the factories, and with other needful things the total value cannot be less than 13,000,000 francs. The machinery, therefore, in the factories of St. Etienne has a value of over 40,000,000 francs, of which two-thirds belong to the workpeople, whose number is estimated at about 70,000. One novel feature of interest in regard to this go-a-head place should be mentioned. It is a scheme for applying cheap and abundant motive power to small workshops for ribbon weaving, in the form of electricity to be derived by passing the water supply of the town at the "Portait Range" reservoir over turbines. The estimated cost to the user would be 0·35 franc daily per loom or machine, and would include an electric lamp.

SWITZERLAND.

THE silk-throwing industry is of considerable importance here, and in 1889 there were fifty-seven establishments employing some 5,686 persons. Zurich is the centre of the silk trade, and gave employment in 1889 to as many as 23,265 hand looms. The number of machine looms was 6,476 in 1889, 4,129 in 1885, and 4,007 in 1883. The machine looms are steadily replacing the hand looms, but for the more artistic stuffs the use of the latter is still very considerable. This industry employed in 1889 46,585 persons, who during the year used the following materials:—940,000 kilogrammes of silk, 12,000 kilogrammes of schappe, 440,000 of cotton, and about 8,700 of wool. There were produced 17,450,000 metres by 23,265 hand looms, or an average of 750 metres per loom, and 15,542,000 metres for 6,476 machine looms, or 2,400 metres per loom on an average; total, 32,990,000 metres of tissues, valued at £3,397,560.

Bâsle is the seat of the silk ribbon industry, and produces annually over £240,000 worth. These are goods of pure silk and mixed silk, generally of a plain character and particularly subject to the change of fashion, but have recently been in great demand.

GERMANY.

CREFELD.—The silk trade of Germany seems to centre in this town, and the Rhenish provinces near, such as Elberfeld, Barmen, Langenburg, Muleheim, Dortmund, Viersen, &c. From the "Jahres-Bericht der Handels-Kammer zu Crefeld für 1890" we find that statistics were compiled from notes from 41 velvet manufactories, 75 stuff manufactories, 24 silk dyers, 13 cotton dyers, and seven

SILK : ITS HISTORY AND ITS INDUSTRIES.

establishments in which silk and cotton are dyed at the same time, which showed that the production of velvet amounted to £1,998,275, and of stuffs to £2,646,000. That in 1890 the number of weavers employed on velvet hand looms was 6,920, and on power looms 2,907. Of velvet ribbon looms there were 964 hand and 197 power, together with 2,484 power looms for material weaving and 14,263 hand looms. The year 1891 has, however, been an unfortunate one for the velvet industry of Crefeld, a considerably less number of looms being worked, and only £202,000 paid for labour in the velvet factories, as against £303,900 in 1890.

AMERICA.

A NEW YORK commercial journal says, that while the American silk industry is usually dated from 1840, there were long before that year silk workers in the country. The first factory of which there is any record was founded at Mansfield, in Connecticut, in 1810, and in 1815 Mr. Horstman founded in Philadelphia a small factory, which is now the oldest in existence in the United States. In 1829 the first home-made silk ribbon was produced in Baltimore, but it was undoubtedly after 1839 that the industry began to assume fair proportions. In 1860 the value of the native silk productions was about \$6,500,000, in 1870 it was \$12,500,000, and in 1880, \$35,000,000. New Jersey took the leading place in the industry, followed by New York, Connecticut, Massachusetts, and Pennsylvania, in this order. It is estimated that in 1891 there were 584 factories engaged in one branch or other of the silk industry, and that the value of the product was about \$60,000,000. It is said that American manufacturers have now taken the entire home market for certain styles of silk fabrics from the Swiss, the French, and other foreign competitors, who previously supplied low and medium priced staple silks. Although the progress of the home silk industry is great, the imports of silk fabrics are still very large, amounting to \$37,880,000, and of raw silk \$19,076,081.

To the English mind a curious attempt to obtain information showing the net profits in manufacturing industries in Massachusetts was made some little time ago by the Boston Labour Bureau, who apparently addressed interrogatories to the manufacturers. From the replies received it appeared that, as far as the firms engaged in the silk industry were concerned, 50 per cent of the number, representing 60·61 per cent of the total capital, made a profit; 7·14 per cent, representing 5·43 per cent of capital, reported a loss; the remainder did not make any returns. As to the actual profits, the excess of the selling price above the cost of production is distributed in silk and silk goods 2·09 per cent interest, 1·14 per cent depreciation, 5 per cent losses, &c., with a net profit of 7·06 per cent. We give this for what it may be worth.

THE BRITISH SILK INDUSTRY :

Historical. Spitalfields. The French Treaty of 1860. The Silk Association. Norwich. Macclesfield. Silk Printing at Langley. Coventry. Derby. Tideswell. Congleton. Leek. Manchester. Rochdale. Bradford. Halifax. Lister's. Leicester. Nottingham. The Scotch Silk Trade.

THERE is a certain fitness in the coincidence that silk, which is so peculiarly a lady's material, has, so far as its manufacture in this country is concerned, both originated, reached its highest point, declined, and been revived while two queens, at distant periods, have occupied the throne of England. In the days of Elizabeth it assumed the importance of an industry, for in 1629 the throwsters of London were incorporated under the style of the Master, Wardens, Assistants, and Commonalty of Silk Throwsters. In the days of Queen Victoria the industry both reached its most important position and also suffered a rapid and serious decline, only, however, to take such steps in a braver spirit of self-help than had previously been shown, as seems now destined to ultimately ensure success on a thoroughly sound basis.

In the year 1585, when the Duke of Parma took and plundered the city of Antwerp, a considerable number of merchants and artisans fled to England, and introduced the silk manufacture into this country. A great stimulus was afforded in 1685, when the revocation of the Edict of Nantes banished from France many of her best and most skilful workpeople, of whom we read that no less than 70,000 settled in the United Kingdom, introducing into the districts in which they settled many useful arts, and particularly improved methods of spinning and weaving. Spitalfields, in London, became the chief silk district in the South of England; and the industry prospered so that the annual consumption of raw silk in Spitalfields reached, about the year 1825, 1,500,000lbs., while now it is, alas, not more than 80,000lbs.! In the year 1692 the Spitalfields weavers obtained a monopoly for lutestrings or lustrings and silk *à la mode*, and in 1697 Parliament even went so far as to prohibit the importation of all French and other European silk goods, and in 1701 of all Chinese and Indian. Surely Protectionists may call these "the good old days!" It would appear as though the silk industry had suffered from too much coddling, for even while the manufacture continued to increase, the workmen were constantly clamouring against the importation of foreign goods. With a view to encourage the manufacture an Act was passed (3 Geo. I., cap. 15) for granting bounties on the exportation of silk fabrics, which amounted merely to a drawback of part of the duties paid on the

SILK : ITS HISTORY AND ITS INDUSTRIES.

importation of raw silk. In 1741 permission was given to the Russia Company to import the raw silk of Persia at the same rate of duty as from the Levant, while in 1749 a similar concession was made in regard to raw silk imported by the East India Company from China.

In the year 1764, when French silks were in favour with fashionable people, and owing to the discontent amongst the English weavers, resulting from scarce work and low wages, demonstrations were held by them, and petitions presented to Parliament praying for the total prohibition of foreign-made silks—a measure of protection which can nowadays be hardly understood. However, so piteous was the tale of suffering, and so strong the representations made, that Parliament was persuaded to reduce the tariff on raw and thrown silk, and to prohibit the importation of certain articles of manufactured silk. The anticipated benefits to the operative did not, however, accrue; the relations between the masters and workmen became more and more strained, resulting in violence and riot, and necessitating the passing of an Act in 1773, confirmed by two subsequent Acts, empowering the aldermen of the city of London and the magistrates for the county of Middlesex to fix the wages of the Spitalfields weavers. Attempts were made by the Legislature between this period and 1824 to encourage the manufacture by restrictive and prohibitory enactments, with the result that the silk industry in England, by these futile attempts to bolster it up, was kept in an artificial and unhealthy state. Instead of applying himself to improve his manufacture, and to seek out, use, and develop his resources, the manufacturer rested on the defective crutch of Protection, while his continental rivals were exerting every power to excel in the *technique* of their industry, efforts which bore fruit so disastrously to the English silk manufacture when, the false barrier being removed by the taking off of the 15 per cent duty on manufactured silk goods in 1860, the foreigners were able to come into this country with their beautiful and comparatively inexpensive goods.

The history of the silk trade seems a typical instance affording an ample demonstration of the folly of attempting to encourage manufactures by prohibiting importation from outside sources; but as we reflect on the hardship and suffering entailed on the industry by an otherwise salutary regulation, it is perhaps open to question whether to reduce a tariff of that magnitude in one fell swoop were altogether kind or wise. Possibly a $2\frac{1}{2}$ per cent, 3 per cent, or 5 per cent reduction each year till extinguished might have saved the trade from the great shock it sustained. Be that as it may, it would appear as though unquestionably the primary cause had been with the manufacturers, some of whom signed the petition to Mr.

SILK : ITS HISTORY AND ITS INDUSTRIES.

Disraeli, then Chancellor of the Exchequer, praying for the removal of the duty. Referring to this at a meeting of the Economics and Statistics Section of the British Association for the Advancement of Science, in 1887, and speaking of these manufacturers, Mr. Wardle is reported to have said :—

They little knew the unprepared and defenceless state to which they had reduced themselves . . . they had not gauged the superior skill of the French, the result of active progress whilst they themselves had been asleep under the sheltering wall of Protection, which, as has been well said, became protection to industrial ignorance and to a false security.

Sir Joseph C. Lee, himself a silk manufacturer, in the discussion which followed, said :—

He did not think that a tariff placed upon silk would have the desired effect on the industry. He expressed the opinion that, as a manufacturing community, they had neglected the silk industry, because they had been so taken up with the cotton and woollen manufactures. He thought that with capital and enterprise much more might be done than had been in silk, and expressed the belief that if manufacturers were to form a guild or society, to bring them into contact with each other for mutual help, it would materially assist in bringing back to England an industry in silk which was of continually growing importance.

A number of manufacturers still think, however, as was expressed at the same meeting by Mr. R. Brown, the secretary of the Macclesfield Chamber of Commerce—

That there should be a more equal adjustment of our fiscal laws to secure something like fair play for the English weaver in the keen competition with his foreign rival.

At the present Great Britain imports manufactured silk to the value of £11,000,000 per annum, and has been doing so for the last twenty-five years, bringing the total to such a gigantic sum as £275,000,000. Mr. Wardle, the president of the Silk Association, says :—

All but a fraction of these products could have been made quite as well, and in many instances much better, in British looms, and purer than the stuffs our merchants, distributors, and fashionable dressmakers have flooded us with for the past quarter of a century.

It is said that formerly the silk industry in Great Britain, with its allied branches, gave employment to 1,000,000 people—an employment both pleasant, healthy, and artistic—but that now not more than 200,000 all told are engaged in the trade.

The Silk Association of Great Britain and Ireland was established with a view to recover this lost ground. Mr. Wardle, the president, thinks it can be done. Speaking at the annual meeting of members in 1891, he said, after stating that this country had paid during the past year to continental silk centres no less a sum than upwards of £11,000,000 for manufactured silks :—

SILK : ITS HISTORY AND ITS INDUSTRIES.

This is the state of things from which we seek to be set free, and for which this Association has been called into action. Has it a work to do? A *raison d'être* to exist? If you think so, let us all help with a will. To those who say it is of no use trying, I say, and with emphasis, I don't for a moment believe it; the great levers of technical education—the power loom and European equalisation of the value of labour—will do it, and are bound to do it in the long run if we have not lost our ancient characteristics of determination and perseverance.

The Silk Association is the outcome of the Royal Jubilee Exhibition, Manchester. Towards the conclusion of that splendid and eminently successful Exhibition there was held, under the auspices of the Silk Section, on October 21st, 1887, the largest conference that has ever taken place in the interests of the silk industry, nearly 500 persons being present. Papers were read and speeches delivered as to the best means to be adopted to revive and maintain the industry, and one result of the conference was the inauguration of this Association with the following objects, viz.:—
 (a) The promotion and maintenance of the silk industry of Great Britain and Ireland in all its branches; (b) to encourage the production of raw silk in India and our colonies; (c) to collect and disseminate amongst its members useful information and statistics connected with or affecting manufacture and commerce in silk; (d) to promote technical, commercial, and linguistic education, and any necessary Parliamentary legislation, and generally to assist in the expansion and development of the trade, &c. The membership of the Association may include silk manufacturers, merchants, dyers, and finishers, and any who may be *bona-fide* interested in promoting the welfare of the silk industry.

The present awakening of interest in this beautiful industry is directly traceable to the efforts of the Association, supported by the co-operation of both manufacturers and distributors. Before, however, referring to the work of the Association, especially in regard to its efforts to promote technical education, a review of the centres of silk industry in this country may be interesting.

Mention has already been made of Spitalfields, and in regard to this and other silk centres a considerable amount of information is to be derived from the Second Report of the Royal Commissioners on Technical Education, vol. 3, published 1884. The goods now made at Spitalfields are principally plain and figured silk and velvet for furniture, scarves and ties, umbrellas, sunshades, chenille, and trimmings; previously they were plain and figured garment goods, vestings, silk stockings, &c. Some of the Spitalfields weavers migrated to Dublin, and established the manufacture of poplins made of silken warp and woollen weft; others, on the introduction of the power loom, migrated to Manchester and district, Macclesfield, Coventry, &c. In the early part of this century the work in London, as elsewhere,

SILK : ITS HISTORY AND ITS INDUSTRIES.

was principally done in the weavers' own homes, though in Hogarth's well-known series of pictures illustrating the idle and industrious apprentice a factory system seems in operation.

Mr. Wardle, in his report to the commissioners, says:—

Since the depression no apprentices have been taken by the weavers, and so there has been less reason for their working in cottages. A large number of houses suitable to the trade have been pulled down, and manufacturers have built factories for those looms requiring great height of ceiling and length of building.

During the best period of the silk trade of London (about 1825) such was the demand for goods that factories were established at Sudbury, Haverhill, Halstead, Braintree, &c. Various kinds of goods are made at these places, but recently the bulk of the looms at Chelmsford and Haverhill have been engaged in the umbrella trade. Sudbury, in Suffolk, used to be an important weaving town, and it is computed there are now some 300 weavers engaged on plain and fancy silks and velvets, &c. There are also some small power-loom factories in these districts. The more recent feature of Spitalfields weaving has been the production of the finest dress and furniture goods ever before manufactured in England.

Mrs. Lynn Linton becomes enthusiastic on this subject, and in an article in *The Queen*, on January 30th, 1892, commenting on the fashionable craze to believe that we, English hoodiecrows, can do nothing comparable in artistic taste to those things which French, Germans, and Italians turn out, says:—

Lately, so far as the silk industry is concerned, a healthier spirit has become manifest. Ask at Liberty's, at Goodyer's, at Stephens's, at our principal mercers and drapers for real English silks, dyed, designed, and woven here at home, and you will get as beautiful material as from France or Italy, and exactly the same things as were sold a few years ago under a foreign label. Go to such a wholesale house as Warner's, in Newgate Street, and inspect there the brocades made by them at their own mills. Nothing can be more lovely in tone of colour, more exquisite in design. These brocades, no dearer than those of foreign looms, though we pay higher wages than they do abroad, must be seen to be appreciated. Artful little touches of colour cunningly introduced here and there to give a shimmery kind of effect, almost as if the fabric were "shot;" plain, or rather uniformly coloured designs on grounds of the kinds our grandmothers wore, the material able to "stand upright of itself;" the heroic breadth of one yard and three-quarters; one superb bit of weaving containing eighteen different shades; and again, one of silk quilted and brocaded in the weaving, white for brides, grey for widows, severely sober tones for the elderly; the brightest and yet most delicate suggestions of moonlight, the dawn, spring flowers, and the budding forest for the young. There is nothing that the loom can produce which surpasses the beautiful things you find here, under the shadow of the grim old prison; and all, from first to last, is English—all save the raw silk which we are not able to produce. Again, at Goodyer's we have English manufactures to which nothing can be or is superior. Talk of the Coan vest, or the "woven air" of the Egyptian, here you find the tenderest, most transparent silk crapes and gauzes that the hand of man can weave. These light goods, dyed by Wardle, are woven at Macclesfield, just as the superb hand-loom brocades are woven at Spitalfields. They may be

SILK : ITS HISTORY AND ITS INDUSTRIES.

matched by India or the Continent, they cannot be surpassed. But they are the product of this clumsy-fisted unæsthetic country out of which no artistry can come. So far, indeed, as our rivalry with foreign manufacturers goes, we may say, without fear of contradiction, that our black silks will be found more durable in the wearing, and while the brocades are as lovely in design and as superb in texture, the failles and mono-chromatic silks are as exquisite in shade and as tender in tone. This is simply true, to be proved true by anyone who will take the trouble to investigate the matter personally. But the prejudice of the country goes the other way, and when you speak to the average fine lady about English silks, she will laugh to scorn the idea of good taste or æsthetic beauty to be found therein.

But this improvement on the part of the manufacturer, and its recognition by purchasers, is the result of the last few years' efforts to reanimate the silk industry, and possibly the taking to heart the lesson conveyed in Mr. Wardle's report to the Royal Commission, where, though he refers to the "great progress" which has recently been made in "design and colouring, as also in the beauty and purity of the manufacture of goods," he educes, as the causes which chiefly acted in producing the decline of the silk trade of London and Spitalfields, the following:—

The great progress made some years ago in manufacturing lower-class silks by power looms in Manchester and elsewhere, and the consequent reduction of wages of the hand-loom weavers, thereby driving many of the younger men from the trade. The sudden removal of duties from foreign productions, and the more recent introduction of goods made with heavily-weighted dyes, destroying (for a time) the fashion for silk fabrics. The absence of sound practical knowledge on the part of employers, and their inability to produce goods of the highest class, in which only hand looms can be employed. The fact that, *until recently*, most persons, who had for the previous forty years been engaged in the trade, did not appear to recognise that silk manufacturing was a business requiring great taste, study, and experience.

Referring, again, to that period in our history which has so affected our career as a manufacturing nation—when

Hops, reformation, bays, and beer,
Came into England all in a year—

we find that Norwich was a town favoured by the Huguenots, and that some 300 Dutch and Walloon families settled here, introducing the flowering and striping of silks and damasks, which eventually became one of the chief trades in Norwich. For this purpose Queen Elizabeth granted a license in 1564, at the instance of the Duke of Norfolk and at his charge, until the settlers by their industry made themselves self-supporting. The silk trade in Norwich now consists of crapes and spun silk fabrics, principally decorative furniture cloths.

Macclesfield lays claim to be the "centre of the English silk trade," and, while it is of chief importance as being almost wholly a "silk town," it may also claim to be a first-born among the silk towns, for while the first silk mill (one for silk throwing) was

SILK : ITS HISTORY AND ITS INDUSTRIES.

established in 1756 by a Mr. Charles Roe, silk goods had been manufactured in Macclesfield for about a century previously, the Corporation records of 1698 mentioning persons skilled in the art of button making, which in 1749 was the principal industry there. The thrown silk trade of Macclesfield has seriously declined, and there appears but small prospect before it. Half the quantity now used in the town is of foreign origin, the bulk being produced in Italy, where labour is cheaper and the hours longer, and where, with the altogether different climatic and social conditions, life and energy can be supported on very different and less expensive food, shelter, and clothing than in these northern climes. The goods for which Macclesfield is principally famous are ladies' ties for the neck, saracenets, Persians, bandanoes, swivel shawls, scarves (plain and figured), handkerchiefs (plain and figured), and piece goods, though the swivel trade has largely gone to Scotland.

The trade is divided into two seasons, spring and autumn. During the former period, the Secretary of the Chamber of Commerce says :—

The town is engaged in producing a lower quality of manufactured goods than in the latter. Recently the return to the town of the cut-up trade, *i.e.*, goods made by the yard for cutting up and making into gentlemen's ties, was a gratifying feature, as of late years these goods have principally been made in Crefeld, Zurich, and Lyons.

The handkerchief trade is probably the most important one in Macclesfield, while manufacturers, having adapted themselves to the mixed cloths, have wrested from France and Germany a large and important trade in mufflers and ties, and it is computed that there is an amount of material produced yearly sufficient to make up ties for 4,000,000 men. The increasing use of the power loom is inspiring hope in the future, and what improvement of late has been in the Macclesfield trade is due to its introduction. Manufacturers say that they have scarcely a staple article in the trade, which makes it peculiarly subject to periods of depression. The most naturally prosperous period in the trade of Macclesfield would appear to be in the decade 1841 to 1851. A large and temporary prosperity accrued during the period of the Franco-German War (1870-72) owing to the stoppage of importation of manufactured goods from the Continent. Macclesfield handkerchiefs and scarves are exported to the Continent of Europe, and it is stated on good authority that they have been known to be re-shipped to this country and sold in the shops here as of French manufacture.

The report to the Commissioners on Technical Instruction states that "the following have been the wages paid at Macclesfield," and at such prices one would hardly credit that foreign labour would be a serious drawback. If it is, the sooner the foreign workman receives

SILK : ITS HISTORY AND ITS INDUSTRIES.

a more adequate remuneration the better it will be for the silk worker and silk trade at home. Here is a chance for trade unions on the Continent: Raw silk winders, 8s. 6d. to 10s. 6d. per week; dyed silk winders, about 11s. per week when at regular work; weavers, 13s. to 14s. per week the year round; dyers, about 20s. per week.

As to the causes which have led to the decline of the silk trade in Macclesfield, we learn from the same authority that there are eight reasons alleged, as follows:—

1. Changes of fashion.
2. Free importations of French and German goods (especially black silks, velvets, and mixed goods).
3. Duties imposed by other countries on our manufactures.
4. Cost of living and wages compared with Germany, Switzerland, and Italy.
5. Want of technical education.
6. Superiority of continental finishers in rendering silk goods attractive and mixed goods hard to distinguish from pure material.
7. The public taste for cheapness in preference to quality and durability.
8. Strikes, occasioned sometimes by the unfairness of the employer, and at other times by the unreasonable demands of the weavers' union in times of prosperity.

Fortunately Macclesfield has succeeded in bringing to a very high standard of excellence its school of art, whose students by their capacity have attracted the special notice of the judges at South Kensington, and manufacturers are availing themselves of designers trained in this institution; while, with the help of the technical school which has been established about six years, and which has now been taken in hand and is to be considerably enlarged and augmented by the Corporation of Macclesfield, it is to be hoped that substantial benefits will accrue to the silk industry in this town.

The *Textile Mercury* of September 26th, 1891, commenting upon the situation of the silk industry in Macclesfield, makes the following trenchant remarks:—

We are disinclined, says the writer, to admit that foreign manufacturers of the better classes of silks have any appreciable advantages over Macclesfield, either in regard to machinery, cost of raw material, or wages. The Italian manufacturers of plain stuffs can draw upon an abundant supply of cheap labour, but the making of "tabbies" did not produce the wealth of Lyons, Crefeld, or Zurich. Where the foreigner has the advantage is in brains; and lest adverse critics should rail at us for this expression of opinion, we will quote the words used by Mr Henry Birchenough, when asked whether he could explain anything possessed by continental houses that English firms could not boast of. He said, speaking of the Germans: "They possess the machinery and the knowledge, which we do not possess; but I am inclined to think that the secret of their success as the competitors of Lyons is the secret of their success throughout Europe and throughout the world. They came upon the market offering facilities of all kinds which no other nation did afford. They were the first to approach the foreign customer in his own tongue, and to invoice in all foreign money and in foreign measures, and to give facilities with regard to quantities and payment of duties and carriage. Adversity, the best of all teachers, has taught many firms in this country useful

SILK : ITS HISTORY AND ITS INDUSTRIES.

lessons ; and a small section of our silk manufacturers have risen manfully to the occasion, with the result that while the bulk is in a decaying or, at any rate, moribund condition, the smaller portion is full of vigorous life. Twenty years hence, if the present indications continue, our silk industry will present an aspect vastly different from that of to-day. Old firms are able to keep on the old track by means of their capital and connection, but new comers are compelled to move in different grooves, and it is of these more than of the others that we shall hear most in the years to come "

Langley, a picturesque village near Macclesfield, calls for some attention as being a place containing probably the principal of the few silk block-printing works now existent in this country, though the art productions in printed silk, at Leek, by Mr. Wardle, and those of the Swaislands Printing Company, at Crayford, in Kent, are well known. Says a writer, again to quote from that excellent journal, the *Textile Mercury* :—

The silks printed in Great Britain are, it is believed, all turned out by the block system, although a scheme was said to have been on foot some little time ago for the production of the goods by power. Whether it has been brought to a successful issue or not I cannot just remember, but in the United States, as well as at Lyons and other continental centres, silk printing by the cylinder machine is an important industry, while here the laborious block method is dragging out a feeble existence. Silk printing is now chiefly confined to the decoration of handkerchiefs (both of British and Indian manufacture), curtains, and other furniture stuffs. The output is necessarily small, as will be perceived after a perusal of the details which appear below. The trade, nevertheless, is an interesting one, not only on account of its historic importance, but because it represents a branch of the silk business which will probably be a thing of the past before many years have elapsed. In connection with the origination of designs, British silk printers are naturally handicapped owing to the limited demand, which does not afford that encouragement for an extensive outlay with which calico printers are blessed. And yet, with only about four firms of silk printers in the country, it is claimed that more originality is displayed than can be found in the ranks of calico printers, with one or two exceptions. The owners of the Langley Printworks have seen many rivals disappear for ever from the commercial field. As they retired, the Whistons bought up their blocks, and the shed in which these relics of the past are now stored has been grimly spoken of as the "graveyard." There are about 100,000 blocks and old patterns at Langley, and the possession of such a vast quantity enables the owners to reproduce patterns of handkerchiefs and other goods in small quantities, which could not be supplied at remunerative prices if the blocks had to be cut again. Designs thirty to forty years old are sometimes asked for. Three pieces only of a single pattern, each seven yards long, represent the size of the orders frequently placed, and it is not surprising under the circumstances that machinery has been kept out of the trade.

Coventry.—In this ancient town the silk industry appears to have settled in the latter part of the seventeenth century. In 1705, Mr. William Bird, silkman, was mayor, and one Thomas Bird, a silk manufacturer, who employed nearly 2,000 workpeople, died in 1746, so that it is reasonable to assume that the trade had developed to a considerable extent by that period. The character of the trade has considerably changed, developing latterly into the making of

elastic webs, mock gros grainés, failles, plush shades, ottomans, plaids, brocade neckties, dress fringes, chenille, and other trimmings, watered sashes, birthday ribbons, &c., besides spun silk mixed and fancy goods. The early looms were of course hand looms, and were very simple affairs, in which only one ribbon could be made at once. These have been succeeded by power looms of first-class character capable of producing high-class ribbons and scarves, the results of which are noticed in the cleverly woven pictures illustrating sporting and other subjects. These looms will weave a number of lengths of ribbon together, and carry from two to six sets of shuttles. To a large extent the factory system in Coventry has been abandoned, the work being done in large part in the weavers' own houses, in what is called the "cottage factory," which consists of a row of cottages the upper story of which has a steam-power shaft running through the whole length, which power can be communicated to the loom, the lower portion of the premises being used as dwelling-houses. Recognising the superiority of the artistic skill of France and Germany, owing to better technical education in those countries, steps were taken in 1883 to establish a technical school in Coventry, and the project being taken up with spirit, Coventry now possesses a very complete establishment, and the Corporation sent over to Lyons and St. Etienne Mr. Bednall, a young citizen of Coventry, to be trained as a teacher of silk weaving. It appears to have been a wise step and has been attended with satisfactory results, and it is considered that there is a good prospect of restoring the silk trade to Coventry. An interesting custom still obtains in this ancient town. It is that of making freemen of boys who have served seven years' apprenticeship in the silk trade, and appears to have been in vogue for a long period. At the age of seventy such freemen are entitled to a pension of six shillings a week.

Derby.—It is questionable as to whether Derby can be legitimately accounted now a silk town. What business there is consists of trimmings, elastic webs, thrown silk, surgical bandages, and stockings. In 1718 the celebrated silk mill, which has stood till about a couple of years ago, was erected by John Lombe. It was situated by the bridge which crosses the Derwent near the northern end of the town, and was erected for carrying on silk throwing. He obtained his models from Italy and secured a patent from the British Government, and upon its expiration his successor was granted the sum of £14,000 for his efforts in making the English weaver independent of the foreign throwster. A model of the mill and of its machinery had to be made and sent to the Tower of London for public inspection. The mill was driven by water power, and was in use as mentioned to within about two years ago, when while undergoing some repairs it collapsed.

SILK : ITS HISTORY AND ITS INDUSTRIES.

Tideswell, in Derbyshire, is the seat of a small industry in silk weaving. There are upwards of thirty hand looms, weaving handkerchiefs and mufflers. They are Jacquard looms, "400 and 600 figured." The history of weaving in Tideswell is interesting. Forty years ago there were from 500 to 600 hand looms weaving exclusively cotton goods, &c., for Manchester merchants. The introduction of the power loom into Lancashire crushed this industry entirely, and about sixteen or seventeen years ago Messrs. J. and T. Brocklehurst and Sons, of Macclesfield, introduced silk weaving there. There were never more than eighty silk looms worked in Tideswell. They are now reduced to upwards of thirty, weaving handkerchiefs for Macclesfield manufacturers, exactly on the Lyons and Scotch principle, several manufacturers giving out their silk to be woven to contractors, who take out the work at a rate agreed upon between them and employ local weavers to work out the contract. There are three such contractors at the present time in Tideswell. Labour is cheap, the population of Tideswell is about 2,000, and it seems a desirable centre for the encouragement of silk weaving on this system both by hand and power.

Congleton.—The chief industry in this town has been silk throwing, the greatest number of establishments in work at one time being in 1859, when there were forty, which by 1884 had dwindled down to twelve, and have been further reduced to half that number. The industry originated with one John Clayton, of Stockport, who in the year 1752 erected a mill, now known as the "Old Mill," on land leased from the Corporation for a period of 300 years. Two years afterwards he was joined in partnership by Nathaniel Pattison, a name still to be found in the silk trade. Besides the silk spinning and throwing, the trade also consists of the making of trimmings and smallwares, whereas previously to the French Treaty of 1860 an extensive manufacture of ribbons was carried on. At its best period about 5,000 workpeople were employed in the silk industry at Congleton; now some 1,500 only, engaged in throwing and spinning and in the manufacture of ribbons, trimmings, crapes, bindings, galloons, and gauzes. There is also one trimming and one throwing works at the adjacent village of Buglawton. The "schappe" or spun silk industry employs a few firms, but generally the trade has fallen off to a shadow of its former importance. The old silk factories, from which the trade has departed, have in a number of cases become occupied by fustian cutters and for the manufacture of cotton velveteen.

Leek.—An epitome of the silk trade in Leek has, with perhaps the possible exception of the Yorkshire spun silk industry, more encouraging features than can be reported of any other centre. It is progressive both in commerce and population. The source

of the trade was Macclesfield, whence, as far as concerns the twisting of sewing silks for which Leek is now famous, it migrated. Leek is the only textile town in the county of Stafford; it had a population in 1891 of 17,210, the bulk of whom were engaged in the silk industry, which is carried on by over fifty firms. At Cheadle, a few miles from Leek, there is a crape factory; while at Flash and on Biddulph Moor hand-made buttons of three-cord silk twist mixed with mohair are still produced largely. The earliest allusion to the staple trade of the moorland town is contained, says Sleigh in his "History of Leek," in an entry in the churchwardens' accounts, dated June 21st, 1686:—

Collected then for the French Protestants, in the parish of Leeke, in ye county of Stafford, the sum of £6. 5s.—George Roades, vicar of Leeke.

It is therefore fairly assumable that after the revocation of the Edict of Nantes, by Louis Quatorze, on the 22nd October, 1685—

These poor refugees, branching off from Coventry, introduced ribbon weaving and ferreting into Derby and Leek. Button making in silk, mohair, and twist, the use of which may be traced back at least 200 years, when, "curiously wrought with the needle," buttons made a great figure in full trimmed suits, was its earliest initiation into the district.

Mr. Condlyffe used to say that—

James Horton, a Coventry man who had served with the 87th Foot in America, was the first weaver of figured ribbons in Leek for Mr. Thomas Sutton, *circa* 1800. Joseph Nyrom, a German, invented the singeing of silk buttons with charcoal, they having previously been burnt with a liquid spirit. An old man named Ball, who died some 70 years ago, was the first twister of sewings in the town, and carried on his operations in a shed, or shade, in a field, now known as Ball's field, behind the old church.

Fifty years ago there were several large establishments for twisting and doubling, the number of silk mills being seven, which, with one cotton factory, employed 844 hands. The population in 1831 was returned at 10,780. At one time it possessed over 400 hand looms for broad silks, and power looms. There were in 1884, according to Mr. Wardle, about 30 hand looms and 300 broad silk power looms, the chief productions of the town being, however, sewing silks and twists, fringes and embroidery silks, buttons, galloons, ferrets, Prussian and other bindings, webs, braids, serges, handkerchiefs, mufflers, brocades, and damasks. Sewing silks are pre-eminently the speciality of the place, and it is in connection with this branch that the manufacturers display the greatest enterprise. There is one throwing mill; but Leek has never held a strong position for the output of throwns, the present trade being probably as great as it has ever been. There are now hardly any cottage hand looms in Leek, about thirty factory hand looms, and upwards of 200 power looms.

SILK : ITS HISTORY AND ITS INDUSTRIES.

A writer in the *Textile Mercury* says :—

The weavers appear to be intelligent men as a rule, their characteristics showing several points of strong divergence from those of Macclesfield, twelve miles away. On the whole, Leek appears to be in a much stronger position than Macclesfield. Its dyers and manufacturers are men of enterprise, who seem determined to keep up their "end of the plank," no matter how others may fare elsewhere.

The manufacture of broad silks, serges, or silk cloth for lining coats, was once a very important trade in Leek, but since the introduction of the bright woollen material known as Italian cloth, and the heavily-weighted boiled-off silk productions of France, the trade declined, though we have it on the authority of Mr. Wardle that—

There is no reason why it should not be resumed as far as the requirements of the country in silk serges are concerned, for it has been proved sufficiently that by weighting the silk as heavily as the French serges are weighted they can be put into the market at a cheaper rate.

One most important feature of this town is the strong position it has acquired for the excellence of its dyeing, a speciality being a beautiful raven black, in colour resembling the black-blue shade one sees on the feathers of a raven. The waters of the river Churnet, and its principal tributary, which run by the town, possess qualities assisting in the production of this particular dye, which is peculiar to the district. This trade is not merely confined to supplying the requirements of local manufacturers, but goods are sent to be dyed at Leek from every silk centre in the country, and also from abroad. In speaking of the dyeworks at Leek, mention should be made of the Leek Printworks of Mr. Thomas Wardle, where, in addition to the dyeing of silk, is carried out the process of the artistic printing for furniture work and dress on silk, tusser silk, wool, cotton, and linen.

The Leek School of Embroidery, which owes so much to the energy and artistic taste of Mrs. Wardle, has gained a well-earned distinction for the beauty of its original designs, as also for the reproduction of ancient patterns, which are combined with excellent workmanship, or one might better say "workwomanship," for by this means, as has been well said, "there has been opened a useful career bringing beauty, quietness, sweet industry, and honest gain to many a woman sorely needing the power of self-help in quiet and womanly ways." We are told that in connection with this institution thirty-five ladies of the district undertook to reproduce in facsimile the famous Bayeux Tapestry, with so much success that—

The reproduction resembles the original as closely as those two traditional peas in a pod. This enormous piece of work is 227 feet in length and 20 inches broad. The wools were dyed to exactly match the shades of the tapestry at this present time; the quaint colouring and designs have been photographically reproduced, and the stitches copy those of the original. In a hundred years' time this copy will be almost as valuable as the original itself.

SILK : ITS HISTORY AND ITS INDUSTRIES.

To sum up, in the words of a writer, it would appear that—

Speaking generally, Leek has maintained its position as no other English silk centre has during the recent years of depression in the silk industry. The commencement of the cheap sewing silk trade by Mr. Lister and others who used *schappe* affected the town, but the pure silk article being stronger has again resumed its hold. German and Manchester bindings and braids may be said to interfere with the business of the manufacturers, but the sewing silk trade, the staple industry of the town, is scarcely touched by outsiders. This is a fact of which few other towns can boast in connection with their principal industry.

MANCHESTER AND DISTRICT (Middleton, Patricroft, Leigh, Westhoughton, &c.).—The silk manufacture in Manchester commenced early in the present century, the district being principally famous for plain and black *gros grain*es. In the Court Leet records we find that on the 11th October, 1830, James Eccleston, silk manufacturer, was fined for a smoke nuisance at his factory, “in or near Fountain Street.” About this period there were twelve silk-throwing mills in the district, and a total of twenty-two in Lancashire, employing more operatives in that branch of the industry than are now engaged throughout the kingdom. Subsequently there were 18,500 looms at work on broad silks alone, and about 50,000 operatives were employed in the silk industry in the Manchester district, which was, in fact, then the centre of the silk industry of the country, a considerable quantity of the raw material being imported from Liverpool.

In late years the encroachments of cotton have practically driven the silk business from Manchester proper, and it is only in such outlying districts as Patricroft, Leigh, and Middleton that the industry can be said to survive. What trade there is consists of the manufacture of piece goods, smallwares, and galloons. The causes which have led to the decline of the trade appear to have been the French Treaty of 1860, coupled with the adulterated dyes introduced into England by the French manufacturers. Further particulars in regard to the trade in this district will be mentioned in connection with the scheme for technical education.

Rochdale, Bradford, Halifax, and other places in Yorkshire carry on the manufacture of plushes, velvets, and piece goods, fringes and sewing threads made from spun silk or “*schappe*.” In all operations and processes with silk, waste is made—firstly, in the cocoon stage both the outer and innermost fibres cannot be reeled, as neither those cocoons which have been eaten through by the moth. In the subsequent throwing, with its processes of winding, twisting, and cleaning, in winding after dyeing, and in warping and weaving, there is refuse, which—

By the application of machinery, similar in principle to that employed in the manufacture of woollen and cotton threads, is carded, or torn into staples or broken lengths of several inches, and then spun into threads or yarn in the

SILK : ITS HISTORY AND ITS INDUSTRIES.

spinning machines or mills. Although this waste product has not nearly so much value as the reeled thread, it finds by its cheapness an ever-increasing use and market. This industry is enormous, and at this time, in England, is far more important in quantity than the trade in silk proper.

The magnificent success which has attended the efforts of Messrs. Lister and Co., of Manningham, in this silk waste industry is best recorded in the words of Mr. Cunliffe Lister (now Lord Masham) himself, when presiding at the annual dinner of the Silk Association of Great Britain and Ireland, on 17th June, 1891:—

It has been said by some persons, and denied by others, that he had invented a method of utilising silk waste. Now, he wished to say that silk waste of the ordinary character had been used by the trade for many years, and that there was nothing new in that. But what was new and of very considerable importance was the utilising of native Indian chassum (which is Indian silk waste), as at that time, 1857, there was a very considerable production. It was Mr. Spensley, a well-known silk broker, who first called his attention to it and to the large stocks that were then warehoused in London, for which as yet no use had been found; in fact, Mr. Spensley said that they had tried to use it for manure, but they found that it would not rot. Although it looked like anything but silk, much more like oakum than anything else, he decided to try some bales at the nominal price of $\frac{1}{2}$ d. per lb.; he afterwards bought the entire stock for 2d. per lb. He had previously considerable experience and success in treating fibrous materials, especially wool—his wool combing machinery having revolutionised the trade of Bradford and heartily benefited the town. It was the great experience gained in wool combing that led to his success in treating silk. It must, however, be well understood that the time and money spent in utilising Indian chassum was only a part, as the greater proportion of the money and time was spent in producing a dressing or combing machine that could and would produce a regular level and even sliver. It was in overcoming these difficulties where the money was lost, and when his last partner left him in 1864, believing the difficulties could never be overcome, the money spent up to that time was over a quarter of a million; it cannot, however, be said that the money was lost, but spent, because it all came back again before the expiration of the patent. Now, it was this machine producing a level sliver that enabled Lister and Co. to sell their yarn on the Rhine at 24s. per lb., when the raw material was only costing from 8d. to 1s. per lb. Then if there be any romance, as it has been termed in utilising Indian chassum, it was both very pleasing and profitable as long as it lasted; but now, alas, it nearly all goes to the Continent, as long hours and cheap labour will tell. The original machine has been superseded by his patent self-acting dressing frame, but at the time it was a most valuable invention, and was the only machine from which a level yarn could be produced which is absolutely necessary for velvet goods, and was undoubtedly the foundation of Manningham's great success in spinning, and the plush loom more recently has made Lister and Co. equally celebrated in woven goods. The loom "plush" lost money for seven years in succession before it was made to answer. These inventions, together with many others, have caused Manningham to prosper, but America with the Mc.Kinley tariff has given a death blow to the plush goods trade. Whereas before that Act was passed, Lister and Co. were exporting over £300,000 worth of plush goods to America, they are now sending practically nothing at all.

Whether Mr. Lister's fears be over-estimated or not the developments of the immediate future will alone decide, but, though doubtless the American market was a very important one, it is not

the only one that uses spun silk goods, and possibly even there the consumer may awake to find that out of his pocket comes the advantage that the "protected" silk manufacturer is reaping by a prohibitory tariff.

Leicester and Nottingham are towns in which it is only of recent years that any considerable quantity of silk goods have been manufactured, these being confined to silk nets, gloves, and hosiery in pure silk and in combination with cotton or wool. There is no factory hand-loom weaving, the lace machines are all in large factories, and are driven by steam power. The wages paid are on the average higher than those paid in other branches of the silk trade, and were reported to the Royal Commission on Technical Education in 1884 as follows: winders in silk-throwing mills, 10s. to 12s. per week; winders in lace factories, 12s. to 15s. per week; weavers of silk stockings, 30s. per week; lace makers, £3 to £4 per week; dyers, 29s. per week.

The French Treaty of 1860, which seems to have had such a numbing effect on the silk towns proper, appears to have acted as a tonic on Nottingham, for its silk products have arisen and flourished since that date. It had an advantage also in the fact that the same looms can be employed for either silk or cotton goods as demand may require. Its school of art, which has produced designers of great skill and originality, and the other facilities for technical education provided in the town, have exercised a great influence on the success of its industries.

THE SCOTCH SILK TRADE.

THE Scotch silk trade, as we have seen, was principally indebted for its development to the Huguenot refugees who came over at the time of the revocation of the Edict of Nantes, in 1685. Some of these wanderers also settled in Scotland, and Picardy Place, in Edinburgh, still marks the site of this colony. Among other industries they introduced weaving, which continued in Edinburgh down to the middle of the present century, when it seems to have died out. Whether any of the Huguenot refugees settled in the West of Scotland or not we are unable to say—nothing in the names of the families engaged in weaving, nor of the places, giving any indication of their presence—but it is probable they did, or at least their influence extended to the west, for in the latter part of the last century weaving of fine cambric and silk goods was settled in Paisley, and was much more important than it had been in Edinburgh. Lovers of the poet Burns will remember that the scanty and airy garment of the witch in "Tam o' Shanter" was a "cutty sark o' Paisley harn." At this time also the East India

SILK : ITS HISTORY AND ITS INDUSTRIES.

Company were importing into this country the beautiful and delicate products of the oriental looms. These were imitated in Paisley, and a large trade grew up. The yarn, however, was nearly all imported. The Cheshire and Derbyshire silk throwsters, the Lancashire spinners of fine cotton, and the Yorkshire spinners of fine botany worsted, used to ride down to Scotland with samples in their saddle bags and spend a high old time in taking orders. The goods were afterwards sent down by sea *via* Liverpool and the Clyde, or Hull and the Forth. Some cotton mills, and even one or two silk-throwing mills, were erected in Scotland, but the bulk of the yarn was of English origin. Old directories of Glasgow show that there were a great many yarn merchants engaged in the trade. The manufacturing houses were numerous but small, and all the weaving was of course by the hand loom. From piece goods the trade drifted mostly into shawls, for which Paisley became celebrated; but the fashion for these articles went out about 1845, at the same time that the power loom was beginning to compete with the hand loom, and a period of great depression and of misery for the work-people ensued, and lasted for a long time. Ultimately, after the acquisition of Burmah, a demand for a cheap class of silk goods arose. The weavers in the villages around Glasgow were able to take up this at a low price, and gradually this Burmese trade increased. A home trade was added after the passage of the Cobden treaty, and now the Scotch silk trade consists of these two branches. The weavers are in comfortable circumstances, in many cases owning their cottages and gardens; and the plant laid down is not too large for the demand. Glasgow is the centre of this trade, and it is confined to that city and four or five villages in the upper part of the Clyde valley. It is almost entirely a handkerchief trade; few piece goods are made, and no ribbons. It is also principally a weaving trade of yarns purchased in England or elsewhere. Throwing is limited in this district, and silk spinning does not exist at all. It is partly a home and partly an export trade, probably more than half is for export. The home trade, besides local sales, is principally done with London and Manchester, and the same class of goods go in small quantities to France and the United States. The export trade is a different class of goods; it is largely to Burmah, and in a lesser degree to Spain and South America. Changes in tariffs have had little effect on the Scotch silk trade; it has been slowly increasing over the last forty years, largely through absence of the trade disputes which have affected some districts in England. There are about 1,500 hand looms, and about the same number of power looms employed. Assuming the value of the annual output of a hand loom at £120, and of a power loom at somewhat less than double that sum, this would give £500,000 as the value of the purely silk

SILK : ITS HISTORY AND ITS INDUSTRIES.

goods purchased in the Glasgow district per annum. There is another and quite distinct class of trade, where silk is used combined with wool and cotton, in shirtings, skirtings, dresses, tapestries, and shawls, but this trade is so variable in season and in amount that no reliable estimate could be made as to its extent or value. It is confined to Glasgow, Paisley, Perth, and some villages in Ayrshire.

TECHNICAL EDUCATION IN SILK.

SCHEME OF THE SILK ASSOCIATION OF GREAT BRITAIN AND IRELAND,
ETC., ETC.

ALL investigations into the decline of the British silk industry seem to point, one and all, to a neglect in times past of the technical efficiency, without which in these days of keen competition no manufacture can survive. It is a feature full of good omen that the various silk centres are becoming alive to the necessity of providing adequate instruction and information of a technical character. Reference has already been made to the enterprise of some of the Coventry manufacturers in obtaining the establishment of a course of training in the art of silk weaving, &c., under the direction of Mr. Walter Bednall, who was sent to the Continent specially to study the subject, and who gained a place of distinction in the technical examinations at Lyons. Macclesfield has a scheme before its Town Council for an enlarged technical school to supersede that established about six years ago by the Chamber of Commerce in the premises of the Useful Knowledge Society, the nucleus of a fund for this purpose having been formed by a grant of £500 from the Goldsmiths' Company of London. The school has been very successfully carried on, and has taken a prominent position in the City and Guilds of London Institute examinations, at the last examination obtaining the maximum number of gold medals for proficiency in silk manufacture and silk throwing. The teacher of the school of silk weaving is Mr. John T. Taylor, of Manchester, lecturer on weaving and designing in the Preston, Chorley, and Todmorden technical schools. The silk throwing and spinning teacher is Mr. Alfred R. Sadler, silver medallist; while the wood-carving classes are conducted by Mr. Harry Smith. Experience has proved that the premises are much too small, and on the passing of the Technical Instruction Act the Town Council adopted it, and levied a rate of one penny in the pound for technical instruction purposes. The Chamber of Commerce have frequently urged the Town Council to take over the technical school and erect a building worthy of Macclesfield and its silk industry. An impetus has been given to the movement by a grant of some £400 a year made

SILK : ITS HISTORY AND ITS INDUSTRIES.

by the County Council towards technical education, and a further promised grant of £1,000 towards the building fund of any new school.

Leek is fortunate in having the Nicholson Institute, in which science and technology classes for twenty-one different subjects were held last winter, attended by more than 200 individual students. Those specially bearing on silk are the classes for chemistry as applied to bleaching and dyeing, and a class for ornament and design. The committee report their regret that, owing to the want of suitable premises, they have not been able to commence instruction in the silk manufacturing industries of Leek. They are keenly alive to the importance of this department of their work, and as soon as an eligible site can be purchased they propose to submit a scheme for the erection of a technical school, embracing class-rooms, workshops, laboratory, weaving-sheds, &c.

In Manchester, the Silk Association of Great Britain and Ireland have given particular attention to secure the establishment of a central silk technical school. The magnificent scheme of the combined Whitworth Institute and Manchester Technical School, now under the control of the Municipal Corporation, offers an opportunity for the establishment in Manchester of a great central teaching curriculum in silk manufacture and its subsidiary branches, and the Technical Instruction Committee of the Corporation have been approached by the council of the Silk Association with a view to the provision of a comprehensive scheme for the silk industry in connection with the Manchester Technical School. The report compiled by the Association on the subject, and which has been presented to the Committee, is appended.

It may be added that the county councils of Lancashire, Cheshire, and Staffordshire have been approached for grants in aid of the scheme, and at the council meeting of the Silk Association, held on the 5th October, 1892, a letter was read from Mr. J. B. Bennion, Director of Technical Instruction for the County Palatine of Lancaster, advising the granting of £500 by the Lancashire County Council for instruction in subjects connected with the silk industry throughout the county of Lancaster, and requesting a detailed scheme as to how the money should be expended. Since that date an intimation has been received that the Staffordshire County Council has signified its willingness to contribute a sum of £150 per annum.

Mr. Wardle, the president of the Association, reported interviews he had had with Mr. J. H. Reynolds, secretary of the Manchester Technical School, and stated that technical instruction in silk weaving, dyeing, and chemistry could now be given in the present technical school either daily or in the evenings, or on Saturday afternoons, provision being made for teaching silk weaving at once. Silk

SILK : ITS HISTORY AND ITS INDUSTRIES.

throwing, bleaching, and finishing would have to wait for the new building. Mr. Reynolds thought that £500 granted from the three county councils of Lancashire, Cheshire, and Staffordshire would be an ample sum to commence with under the present *régime* and buildings, and it would be better not to ask for more than this but rather to wait for larger support for the new buildings. The weaving school will take two-and-a-half years to build, and will be begun next spring. Designs for the proposed magnificent technical school were shown to the meeting. It will probably be one of the finest buildings for technical education in Europe.

The president stated that the Manchester Corporation Technical Instruction Committee had responded most handsomely to the representations of the Association, and were determined to have a thoroughly efficient silk section. In regard to the grant made by the Lancashire County Council, and their request for direction as to the best method of applying the money, the council of the Association resolved, on the motion of Mr. Blair, seconded by Mr. Newton—

That the Lancashire County Council can, in their opinion, best expend the £500—firstly, by assisting the Manchester Technical School by a subscription to extend the necessary teaching facilities for silk manufacture; and secondly, by paying the fees of deserving Lancashire students to attend at the Manchester Silk School.

It was further resolved—

That the warm acknowledgments of this Association be tendered to the Lancashire County Council for the generous response made to their request for help in silk technical instruction by this Association, and to inform them that the Technical Committee of the Manchester City Corporation will open communications with them upon the subject, and that the president advise the technical school of the grant.

It is therefore to be assumed that Manchester will, in due course, form a very important centre for silk technical instruction, and attract many students.

REPORT

SHOWING PROVISION AND OUTLAY NECESSARY FOR PRACTICAL
TEACHING OF SILK MANUFACTURE, SMALLWARE MANUFACTURE,
SILK DYEING AND FINISHING, AT THE NEW TECHNICAL
SCHOOL, MANCHESTER.

PREPARED BY THE SILK ASSOCIATION OF GREAT BRITAIN AND IRELAND
FOR PRESENTATION TO THE MANCHESTER CORPORATION
TECHNICAL INSTRUCTION COMMITTEE.

1. A LITTLE more than thirty years ago the silk trade was a very important branch of our textile industries. But soon after the conclusion of the French Treaty of 1860, the greater part of this trade was won by foreign nations, alive to

SILK : ITS HISTORY AND ITS INDUSTRIES.

the advantages of scientific industrial instruction, and for many years past England has paid £11,000,000 annually for imported silk goods, all of which could be made at home.

When we endeavour to investigate the conditions under which this trade has been won from us, we find the advantages of the foreign manufacturers to have been :—

- (a) The educated ingenuity of their chemists and dyers in weighting or adulterating silk.
- (b) The perfection of finish attained by finishers scientifically trained for their occupation.
- (c) The opportunities of technical training provided by the municipalities for designers, manufacturers, and workpeople engaged in the silk industry.
- (d) Lower wages and longer hours of labour.

Silk weaving has ceased to be a cottage industry as it was in 1860, for the development of mechanical accuracy has led to the construction of power looms capable of weaving the finest goods at a speed of 150 to 200 picks per minute, and placed this manufacture upon a new basis. This gives an opportunity to the English competitor, with his cheaper fuel and lower-priced machinery, while in this rapid system of production the difference in wages is a less important factor, and the continental hours of labour are being reduced—an eleven hours Factory Act having recently been adopted in France.

Thus the revival of the British silk industry is not impossible, and its primary necessity is the establishment of superior technical schools, to afford the rising generation a scientific training such as will equip them to meet their foreign opponents. The thorough practical teaching requisite to the textile student cannot be efficiently undertaken except by some great institution with extensive equipment. The nucleus of such a weaving institution is now in the hands of the Manchester City Council, and the petition of the Silk Association is for the development and augmentation of the present resources, and their application to a wider scope of teaching.

2. The Technical School in Manchester, as regards its textile department, may, with a little additional outlay, be made so pre-eminent in its efficiency as to attract the best weaving students from a very large district, who would come as day students and be willing to pay considerable fees. The City of Manchester, as the centre of commerce for a wide radius, can afford to look further than merely local considerations. But there is no doubt that the local interests of this city would dictate the course suggested.

That our Lancashire climate is suitable to the silk industry, and our people capable of acquiring the necessary dexterity, is proved by the fact that Manchester was an important centre of this trade forty years ago; the "black gros," "glaces," and "moires antiques," manufactured in the Manchester district, having a wide reputation.

In view of the construction of the Ship Canal, which is expected to bring into this district many heavy trades for men, it is important to encourage industries providing light employment for girls and women, and of such industries that of silk is pre-eminently desirable, as the hands employed therein become cleanly, dexterous, and reliable, and their occupation is neither hazardous nor unhealthy.

3. The demand for instruction on this subject can scarcely be estimated from any list of the number of firms or looms engaged in the manufacture of silk, or part silk fabrics, seeing that, as the most beautiful of all fibres, silk has found so many varied applications.

SILK: ITS HISTORY AND ITS INDUSTRIES.

The number of looms working silk in the Manchester district at the present time is estimated at 1,500, but some of these are very large looms. There is probably an equal number of silk looms now temporarily employed upon other fabrics. The number of manufacturers represented in the foregoing estimate is twenty-two, and the locality of the looms as follows:—

Hulme, Patricroft, Blackley, Failsworth, Denton, &c.....	610
Westhoughton	520
Middleton and Rochdale.....	300
Bedford Leigh	70
	<hr/> 1,500

There are many firms using smaller quantities of silk who cannot properly be included in the preceding list, but who would yet desire to send students. There are also many silk merchants and dealers, silk warehousemen, dealers in silk trimmings, and silk mercers, and others to whom the study of silk would be advantageous.

4. The excellent system organised at the present Weaving School, in Peter Street, facilitates the introduction of such subjects of study as are included under the general title of silk manufacture, and upon which the Science and Art Department hold examinations. Day students for spinning and weaving attend about thirty-eight hours per week, which hours are allotted to the several subjects of study as follows:—

	HOURS.
Lectures on spinning, nature and properties and methods of treatment of various fibres	1
Practical work and study of machinery	8
Lectures on weaving, science of weaving, decomposition of fabrics, colouring, preparatory machinery	1
Practical work on the looms, jacquard mounting, tappet setting, card cutting, study of weaving machinery	8½
Textile calculations for spinning and weaving, drafts, speeds, rating, plans, estimates for plant, study of cottons and their waste ..	2
Lectures on design, principles of ornament and colouring.....	1
Practice of design invention and working out of patterns, drafting, and dissection	6
Freehand drawing for textile design.....	3
Lectures on principles of mechanism	1
Mechanical drawing, freehand sketching of textile machinery	3
Theory and practice of chemistry	3

Students in evening classes, though attending for a lesser number of hours, follow a similar arrangement. The weaving and the cotton spinning lessons are arranged as a separate course of instruction, and students may enter one or both; each subject is divided into two courses for first and second year's students respectively. Persons desiring to enter as advanced students, or attend some of the classes only, may do so on giving satisfactory evidence, by examination or otherwise, "that they are in a position to profit thereby."

Suggested arrangement of Classes.

The principles underlying all weaving being identical, all weaving students may work together through part of their course. It is proposed that the silk student shall devote to special studies those hours which the cotton student gives to cotton spinning. It is further suggested that the silk students shall form a separate class on the subject of textile calculations. As silk is a delicate

SILK: ITS HISTORY AND ITS INDUSTRIES.

and costly fibre it would be well to train the silk students on cotton looms until they reach their second year's course, or honours stage, when part of their time may be spent upon fine cotton and mixed goods, and part upon pure silk.

PROPOSED COURSE OF INSTRUCTION FOR STUDENTS OF SILK WEAVING.

With the number of hours per week to be devoted to each subject by day students.

SPECIAL CLASSES.

	HOURS.
Lectures on silk cocoons and sericulture, on utilisation of silk waste, perforated cocoons, &c.; on silk reeling and silk throwing; on imitations of silk, and on textile fibres used in conjunction with silk	2
Lectures on textile calculations for reeling, throwing, spinning, and for weaving of silk and mixed goods; calculations for reed setting and for structure of fabrics; analysis of fabrics; testing of silk and other threads.....	2
Practical work and study of silk reeling and silk throwing; silk spinning machinery	6
(Study of the French and German languages, or one of them, is presumed to have preceded this course, or should be included.)	
In Chemistry Department.—Silk conditioning, boiling off, testing of weighted silk; discharging, dyeing and finishing of silk fabrics woven in the gum; dyeing and finishing of velvets and plushes, silk dyeing and silk finishing	1½
Total time in special classes	11½

The following general classes, as now held, should be attended by silk students—

Theory and practice of chemistry; the chemistry of bleaching, dyeing, and finishing; cotton and other textiles	3
Lectures on design; principles of ornament and colouring	1
Practice of design; invention and working out of patterns; drafting and dissection	6
Freehand drawing for textile design, with lecture on ornament and design	3
Lectures on principles of mechanism	1
Mechanical drawing and freehand sketching of textile machinery..	3
Lecture on weaving, science of weaving, decomposition of fabrics, colouring, and preparatory machinery.....	1
Practical work on the looms; jacquard mounting, tappet setting, card cutting, study of weaving machinery	8½
Total time in general classes	26½
„ special „	11½
„ per week.....	38

SILK: ITS HISTORY AND ITS INDUSTRIES.

To carry out the foregoing suggestions, arrangements should be made for— (1) lecture course on silk, sericulture, and reeling; (2) course of instruction on silk dyeing and finishing. And the following occasional assistants would be required:—(1) Assistant teacher, a practical silk weaver; (2) assistant teacher, a practical silk throwster; (3) assistant teacher, a practical silk finisher.

SILK SPINNING AND WEAVING.

Of the machinery, specimens, models, and apparatus requisite for practical instruction in silk, silk reeling, silk spinning, and silk weaving, the school already possesses about one-half. The following additions are recommended:—

Set of five machines for throwing and spinning, organzine and tram with all modern improvements constructed of an uniform length of six to seven feet, with requisites for same	£100
Four additional power looms for silk, new foreign patents	180
Two additional hand looms for gros and brocades	50
Small machines, apparatus and fittings, &c.	20
Total.....	£250

It is recommended that the space allotted to this branch of the subject be 800 square feet. The Association does not think it is necessary or desirable to purchase machines for the spinning of waste silk, which for the present may be taught by illustrated lectures.

SILK DYEING AND FINISHING.

The following has been found to be the cost of a separate department for silk dyeing, calculated as for fifty students—

Dye pans.....	£750
Glass apparatus, balances, drying chambers, &c.	87
Benches, shelves, tables, burners, &c.	100
Total.....	£937

Or about £20 per student.

A set of calenders and appliances for finishing silk will cost from £500 to £1,000, according to extent of appliances; and the space requisite for a department for dyeing and finishing on the above scale would amount to 1,000 or 1,500 square feet. It will, however, probably be found that the school is already possessed of the greater portion of the requisite apparatus for instruction in dyeing.

SMALLWARE TRADE.

This Association has considered the requirements of the smallware trade, comprising the manufacture of braids, *passementerie*, upholsterer's trimmings, &c., an industry closely allied to the broad silk trade, and one that has also suffered from foreign competition, though to a lesser extent. The subject

SILK: ITS HISTORY AND ITS INDUSTRIES.

presents difficulties in teaching, as being a business of innumerable minute details with no technical literature in the English language, its text books having yet to be written.

It is estimated that not more than 10 per cent of smallware students presenting themselves for instruction would desire to take the lessons on jacquard machinery, jacquard designing, and card cutting, nor would cotton spinning be required. As these goods are composed of linen, cotton, wool, silk, and other fibres under combinations and conditions unusual in other textile trades, the Silk Association suggests the formation of a distinct department for smallwares. A small outfit for smallware students, say—

Twelve or fifteen looms with auxiliary machines, machinery for making braids, fringes, cords, &c., and the <i>distinctive</i> machines requisite to the making-up department in this trade, would cost	£1,000
To which add necessary apparatus for other special practical instruction	250
Total.....	£1,250

Teaching Staff.—Teacher and lecturer, with occasional assistant. Special and general lectures by the present teaching staff to occupy about one-half of the smallware student's time. Requisite space, 1,000 square feet.

The Silk Association further suggests that the City and Guilds of London Institute should be requested to establish examinations on smallware weaving, *distinctive from those* for the broad silk trade, also from the ribbon weaving examinations.

Although, as has been said by Mr. Blair, of Glasgow, much has been done of late years in technical education, there is really no graduated system linking the whole kingdom together, neither for silk trade nor for any other industry. Each centre is fighting for itself, so that in districts where any particular industry is unimportant, the expense of a special school for that industry is too great and nothing is done. Silk is in this position in such towns as Derby, Manchester and neighbourhood, Leeds, Bradford, Glasgow, and Dublin, where silk forms only a small proportion of the goods produced. However, technical education for the silk trade need not be confined merely to teaching the art of weaving, more than that is required. The schools of art, which exist in nearly every centre, contribute a good deal in improving the taste for design, and much solid work is being done for the silk trade by these institutions. Then there are many classes for chemistry in operation, and where these treat of its application to the arts, such as dyeing, which these classes generally do, they also contribute to technical education in silk. Many districts have not yet got beyond this stage, but it is to be hoped

SILK : ITS HISTORY AND ITS INDUSTRIES.

that direct teaching in throwing, spinning, and weaving will, at least in the principal centres, be shortly established. The expense of erecting such a complete school, and the limited number of pupils, are serious obstacles, and could only be faced in the large centres. Manchester appears to offer special advantages for the establishment of a superior and complete technical school for silk. Not only has it a central position, but it already possesses three-fourths of the appliances and of the teaching power that would be necessary. Perhaps a good arrangement would be to have such a superior school in Manchester, while in the other districts there might be preparatory schools, where sufficient pupils offered, and schools of any speciality of the district, such as ribbons in Coventry. Towards this end things may yet tend, but at present there is no system or uniformity, as may be gathered from the reports furnished.

In conclusion may be quoted the opinion of Mr. Wardle as to the future of the trade. He says:—

I am inclined to think that if the silk industry is to be re-won, it will not be by capital, but by young men, well trained technically, and taught to love artistic work for its own sake, as distinct from the mere love of money getting, capable of performing all the manipulations to the most minute item of the operations to which they especially devote themselves, being themselves capable teachers and not dependent on superior or more accurate knowledge in persons employed by them, except perhaps the greater facility in handicraft operations, which a workman from habit and from constant employment of his hands must have. To a great body of young men so working, and being content to raise themselves from small beginnings, I believe there is a great future. Then English silks will be preferred again, as they were in similar history of past success. Another thing is equally clear, that to have continued the duty upon foreign silks would have only tended to prolong or perpetuate the ignorance of the English manufacturer. Nothing now remains but to attain to the excellence, in all minutiae, which characterises the work of our foreign rivals, never so perfect in all its details as now. If the English people will give encouragement to the wearing of English silks, whether they choose to buy the cheaper weighted goods or the more expensive pure ones, and also if they can be assured of the exact composition of the article they are buying, there is a sure and certain hope, with the aid of our art schools and a well applied technical education, of the resuscitation and recovery of the manufacturing of English silks, at any rate for the English people.

CO-OPERATIVE SOCIETIES IN THE UNITED KINGDOM.

STATISTICS SHOWING THE POSITION AND PROGRESS OF THE
CO-OPERATIVE MOVEMENT FROM 1862 TO 1890.

THE following tables are continued from the last year's "Annual," with the figures for the year 1890 added.

Table No. 1, which relates to the whole of the societies in the United Kingdom, shows that at the end of 1890 there were 1,806 enrolled; of these 1,647 had furnished returns, whilst 159 had omitted to do so.

These 1,806 societies had a membership of 1,140,573 persons; their sales for the year were £43,731,669; they realised a net profit of £4,275,617, and granted £27,587 to educational purposes.

Compared with the figures for 1880, the foregoing results show very substantial increases, viz., 83 per cent in membership, 88 per cent in sales, and 128 per cent in profit.

The total sales for the twenty-nine years 1862 to 1890 are £556,660,431, on which a net profit of £47,685,118 has been realised.

Table No. 2 relates to societies in Great Britain; No. 3 to England and Wales; No. 4 to Scotland; and No. 5 to Ireland.

From the last three tables we extract the following comparisons:—

CO-OPERATION IN ENGLAND AND WALES DURING 1880 AND 1890.

	1880.	1890.	Increase per cent.
Societies (making returns)..No.	953	1,290	35
Members	No. 526,686	955,393	81
Capital (share and loan)£	6,931,340	13,576,574	95
Sales	£ 20,129,217	35,367,102	75
Profits	£ 1,600,000	3,393,991	112

CO-OPERATION IN SCOTLAND DURING 1880 AND 1890.

	1880.	1890.	Increase per cent.
Societies (making returns)..No.	224	341	52
Members	No. 76,855	183,387	138
Capital (share and loan)£	634,121	2,368,947	273
Sales	£ 3,102,460	8,300,261	167
Profits	£ 266,839	879,019	229

CO-OPERATION IN IRELAND DURING 1880 AND 1890.

	1880.	1890.
Societies	No. 6	16
Members.....	No. 522	1,793
Capital (share and loan).....£	7,922	7,263
Sales	£ 16,637	64,306
Profits	£ 1,760	2,607

CO-OPERATIVE SOCIETIES

TABLE (1).—GENERAL SUMMARY of RETURNS

(Compiled from Official Returns)

YEAR.	NUMBER OF SOCIETIES			Number of Members.	CAPITAL AT END OF YEAR.		Sales.	Net Profit.
	Registered in the Year.	Not Making Returns.	Making Returns.		Share.	Loan.		
1862	<i>a</i> 454	<i>g</i> 68	332	90,341	£ 428,376	£ 54,499	£ 2,333,523	£ 165,500
1863	51	73	381	111,163	579,902	76,738	2,673,778	216,000
1864	146	110	394	<i>b</i> 129,429	684,182	89,122	2,836,606	224,400
1865	101	182	403	<i>b</i> 124,659	819,367	107,263	3,373,847	279,500
1866	163	240	441	<i>b</i> 144,072	1,046,310	118,023	4,462,676	372,500
1867	137	192	577	171,897	1,475,199	136,734	6,001,153	398,500
1868	190	93	673	211,781	1,711,643	177,706	7,122,360	424,400
1869	65	133	754	229,861	1,816,672	179,054	7,353,363	438,500
1870	67	153	748	248,108	2,035,626	197,029	8,201,685	553,500
1871	56	235	746	262,188	2,305,951	215,453	9,463,771	666,500
1872	141	113	935	330,550	2,969,573	371,541	13,012,120	936,500
1873	226	138	983	387,765	3,581,405	496,830	15,639,714	1,110,000
1874	130	232	1,031	412,733	3,905,093	587,342	16,374,053	1,223,000
1875	117	285	1,170	480,076	4,403,547	849,990	18,499,901	1,429,000
1876	82	177	1,167	508,067	5,141,390	919,772	19,921,054	1,743,000
1877	67	246	1,148	529,081	5,445,449	1,073,275	21,390,447	1,924,000
1878	52	121	1,185	560,993	5,647,443	1,145,717	21,402,219	1,837,000
1879	52	146	1,151	572,621	5,755,522	1,496,343	20,382,772	1,857,000
1880	69	100	1,183	604,063	6,232,093	1,341,290	23,248,314	<i>c</i> 1,868,000
1881	66	..	1,240	643,617	6,940,173	1,483,583	24,945,063	1,981,000
1882	67	115	1,288	687,158	7,591,241	1,622,431	27,541,212	2,155,000
1883	55	170	1,291	729,957	7,921,356	1,577,086	29,336,028	2,434,000
1884	78	63	1,400	797,950	8,646,188	1,830,836	30,424,101	2,723,000
1885	84	50	1,441	850,659	9,211,259	1,945,834	31,305,910	2,988,000
1886	83	65	1,486	894,488	9,747,452	2,160,090	32,730,745	3,070,000
1887	87	145	1,516	967,828	10,344,216	2,253,576	34,483,771	3,190,000
1888	100	140	1,592	1,011,258	10,946,219	2,452,887	37,793,903	3,454,000
1889	193	123	1,621	1,071,089	11,687,912	2,923,711	40,674,673	3,734,000
1890	122	159	1,647	1,140,573	12,783,629	3,169,155	43,731,669	4,275,000
Totals ..							£556,660,431	£47,685,000

a The Total Number Registered*b* Reduced by 18,278 for 1834, 23,927 for 1865, and 30,921 for 1866, being the number of "Individual Members"*c* Estimated on the basis of the returns*d* Includes Joint*e* The return states this sum to be "Investments other than in Trade," which may mean investments in other than the ordinary business of the society*g* Estimated.

UNITED KINGDOM.

for each Year, from 1862 to 1890 inclusive.

(Sources, and Corrected.)

Trade Expenses.	Trade Stock.	CAPITAL INVESTED IN		Profit Devoted to Education.	Amount of Reserve Fund.	YEAR.
		Industrial and Provident Societies, and other than Trade.	Joint-stock Companies.			
£	£	£	£	£	£	
127,749	....	....	....	....	....	1862
167,620	....	....	....	....	....	1863
163,147	....	....	....	....	....	1864
181,766	....	....	....	....	....	1865
219,746	....	....	....	....	....	1866
255,923	583,539	d 494,429	....	3,203	32,629	1867
294,451	671,165	137,397	166,398	3,636	33,109	1868
280,116	784,847	117,586	178,367	3,814	38,630	1869
311,910	912,102	126,736	204,876	4,275	52,990	1870
346,415	1,029,446	145,004	262,594	5,097	66,631	1871
479,130	1,383,063	318,477	382,846	6,696	93,601	1872
556,540	1,627,402	370,402	449,039	7,107	102,722	1873
594,455	1,781,053	418,301	522,081	7,949	116,829	1874
686,178	2,095,675	667,825	553,454	10,879	241,930	1875
1,279,856	2,664,042	....	....	....	....	1876
1,381,961	2,648,282	....	....	....	....	1877
1,494,607	2,609,729	....	....	....	....	1878
1,537,138	2,857,214	....	....	....	....	1879
1,429,160	2,880,076	e 3,447,347	....	13,910	....	1880
....	3,053,333	....	....	13,825	....	1881
1,690,107	3,452,942	e 4,281,264	....	14,778	....	1882
1,826,804	3,709,555	e 4,497,718	....	16,788	....	1883
1,936,485	3,575,836	e 4,550,890	....	19,154	....	1884
2,082,539	3,729,492	e 5,433,120	....	20,712	....	1885
1,800,347	4,072,765	e 3,858,940	....	19,878	....	1886
1,960,374	4,360,836	e 4,491,483	....	21,380	....	1887
2,045,391	4,556,593	e 5,233,859	....	24,245	....	1888
2,182,775	4,795,132	e 5,833,278	....	25,455	....	1889
2,361,319	5,141,750	e 6,953,787	....	27,587	....	1890

to the end of 1862.
 returned by the Wholesale Society, and which were included in the returns from the Retail Societies,
 to the Central Co-operative Board for 1881.
 stock Companies.
 Wholesale, Corn Mills, Joint-stock Companies, Building Departments, Banks, Mortgages, Loans, &c.

CO-OPERATIVE SOCIETIES

TABLE (2).—GENERAL SUMMARY of RETURNS

(Compiled from Official Returns)

YEAR.	NUMBER OF SOCIETIES			Number of Members.	CAPITAL AT END OF YEAR.		Sales.	Net Profit.
	Registered in the Year.	Not Making Returns.	Making Returns.		Share.	Loan.		
					£	£	£	£
1862	a454	g68	332	90,341	428,376	54,499	2,333,523	165,562
1863	51	73	381	111,163	579,902	76,738	2,673,778	216,005
1864	146	110	394	b129,429	684,182	89,122	2,836,606	224,460
1865	101	182	403	b124,659	819,367	107,263	3,373,847	279,226
1866	163	240	441	b144,072	1,046,310	118,023	4,462,676	372,307
1867	137	192	577	171,897	1,475,199	136,734	6,001,153	398,578
1868	190	93	673	211,781	1,711,643	177,706	7,122,360	424,420
1869	65	133	754	229,861	1,816,672	179,054	7,353,363	438,101
1870	67	153	748	248,108	2,035,626	197,029	8,201,685	553,435
1871	56	235	746	262,188	2,305,951	215,453	9,463,771	666,399
1872	138	104	927	339,986	2,968,758	371,531	12,992,345	935,551
1873	225	135	972	387,301	3,579,962	496,740	15,623,553	1,109,795
1874	128	227	1,026	412,252	3,903,608	586,972	16,358,278	1,227,226
1875	116	283	1,163	479,284	4,793,909	844,620	18,484,382	1,427,365
1876	82	170	1,165	507,857	5,140,219	919,762	19,909,699	1,742,501
1877	66	240	1,144	528,576	5,437,959	1,073,265	21,374,013	1,922,361
1878	52	119	1,181	560,703	5,645,883	1,145,707	21,385,646	1,836,371
1879	51	146	1,145	573,084	5,747,907	1,496,143	20,365,602	1,856,308
1880	67	100	1,177	603,541	6,224,271	1,341,190	23,231,677	c1,866,839
1881	62	..	1,230	642,783	6,937,284	1,483,583	24,926,005	1,979,576
1882	66	113	1,276	685,981	7,581,739	1,622,253	27,509,055	2,153,699
1883	55	165	1,282	728,905	7,912,216	1,576,845	29,303,441	2,432,621
1884	76	57	1,391	896,845	8,636,960	1,830,624	30,392,112	2,722,103
1885	84	47	1,431	849,616	9,202,138	1,945,508	31,273,156	2,986,155
1886	82	62	1,474	893,153	9,738,278	2,159,746	32,684,244	3,067,436
1887	84	140	1,504	966,403	10,333,069	2,252,672	34,437,879	3,187,902
1888	100	130	1,579	1,069,773	10,935,031	2,452,158	37,742,429	3,451,577
1889	89	118	1,608	1,069,396	11,677,286	2,923,506	40,618,060	3,731,966
1890	110	151	1,631	1,138,780	12,776,733	3,168,788	43,667,363	4,273,010
					Totals..		£556,101,701	£47,648,855.

a The Total Number Registered

b Reduced by 18,278 for 1864, 23,927 or 1865, and 30,921 for 1866, being the number of "Individual Members"

c Estimated on the basis of the returns made

d Includes Joint-

e The return states this sum to be "Investments other than in Trade," which may mean investments in the

g Estimated.

GREAT BRITAIN.

each Year, from 1862 to 1890 inclusive.

Prices, and Corrected.)

Trade Expenses.	Trade Stock.	CAPITAL INVESTED IN		Profit Devoted to Education.	Amount of Reserve Fund.	YEAR.
		Industrial and Provident Societies, and other than Trade.	Joint-stock Companies.			
£	£	£	£	£	£	
127,749	....	....	....	....	....	1862
167,620	....	....	....	....	....	1863
163,147	....	....	....	....	....	1864
181,766	....	....	....	....	....	1865
219,746	....	....	....	....	....	1866
255,923	583,539	d494,429	....	3,203	32,629	1867
294,451	671,165	137,397	166,398	3,636	33,109	1868
280,116	784,847	117,586	178,367	3,814	38,630	1869
311,910	912,102	126,736	204,876	4,275	52,990	1870
346,415	1,029,446	145,004	262,594	5,097	66,631	1871
477,846	1,383,063	318,477	382,846	6,696	93,601	1872
555,766	1,627,402	370,402	449,039	7,107	102,722	1873
593,548	1,781,053	418,301	522,081	7,949	116,829	1874
685,118	2,094,325	667,825	553,454	10,879	241,930	1875
727,392	2,664,042	....	....	....	....	1876
881,285	2,647,309	....	....	....	....	1877
993,842	2,609,729	....	....	....	....	1878
1,136,282	2,857,214	....	....	....	....	1879
1,428,303	2,878,832	e3,429,935	17,407	13,910	....	1880
....	3,051,665	....	....	13,822	....	1881
1,689,823	3,450,481	e4,281,243	....	14,778	....	1882
1,818,880	3,706,978	e4,490,477	....	16,788	....	1883
1,933,297	3,572,226	e4,543,388	....	19,154	....	1884
2,080,427	3,726,756	e5,425,319	....	20,712	....	1885
1,797,696	4,068,831	e3,853,451	....	19,878	....	1886
1,957,873	4,354,857	e4,490,674	....	21,380	....	1887
2,041,566	4,550,743	e5,233,349	....	24,238	....	1888
2,178,961	4,789,170	e5,832,435	....	25,455	....	1889
2,357,647	5,136,580	e6,958,131	....	27,587	....	1890

the end of 1862.

turned by the Wholesale Society, and which were included in the returns from the Retail Societies.

the Central Co-operative Board for 1881.

ck Companies.

olesale, Corn Mills, Joint-stock Companies, Building Departments, Banks, Mortgages, Loans, &c.

CO-OPERATIVE SOCIETIES

TABLE (3).—GENERAL SUMMARY of RETURNS

(Compiled from Official Returns)

YEAR.	NUMBER OF SOCIETIES			Number of Members.	CAPITAL AT END OF YEAR.		Sales.	Net Profit
	Regis'tered in the Year.	Not Making Returns.	Making Returns.		Share.	Loan.		
1862	454	68	332	90,341	£ 428,376	£ 54,499	£ 2,333,523	£ 165,500
1863	51	73	381	111,163	579,902	76,738	2,673,778	216,000
1864	146	110	394	129,429	684,182	89,122	2,836,606	224,400
1865	101	182	403	124,659	819,367	107,263	3,373,847	279,200
1866	163	240	441	144,072	1,046,310	118,023	4,462,676	372,300
1867	137	192	577	171,897	1,475,199	136,734	6,001,153	398,500
1868	190	93	673	211,781	1,711,643	177,706	7,122,360	424,400
1869	65	133	754	229,861	1,816,672	179,054	7,353,363	438,100
1870	67	153	748	248,108	2,035,626	197,029	8,201,685	553,400
1871	56	235	746	262,188	2,305,951	215,453	9,463,771	666,300
1872	113	66	749	301,157	2,786,965	344,509	11,397,225	809,200
1873	186	69	790	340,930	3,344,104	431,808	13,651,127	959,400
1874	113	177	810	357,821	3,653,582	498,052	14,295,762	1,072,100
1875	98	237	926	420,024	4,470,857	742,073	16,206,570	1,250,500
1876	72	113	937	444,547	4,825,642	774,809	17,619,247	1,541,300
1877	58	186	896	461,666	5,092,958	916,955	18,697,788	1,680,300
1878	48	65	963	490,584	5,264,855	965,499	18,719,081	1,583,900
1879	40	106	937	504,117	5,374,179	1,324,970	17,816,037	1,598,100
1880	53	62	953	526,686	5,806,545	1,124,795	20,129,217	1,600,000
1881	50	..	971	552,353	6,431,553	1,205,145	21,276,850	1,657,500
1882	51	82	1,012	593,262	7,058,025	1,293,595	23,607,809	1,814,300
1883	42	158	990	622,871	7,281,448	1,203,764	24,776,980	2,036,800
1884	64	48	1,079	672,780	7,879,686	1,359,007	25,600,250	2,237,200
1885	73	47	1,114	717,019	8,364,367	1,408,941	25,858,065	2,419,600
1886	67	61	1,141	751,117	8,793,068	1,551,989	26,747,174	2,476,600
1887	73	139	1,170	813,537	9,269,422	1,598,420	28,221,988	2,542,800
1888	94	125	1,244	850,020	9,793,852	1,743,890	30,350,048	2,766,100
1889	81	112	1,268	897,841	10,424,169	2,098,100	33,016,341	2,981,500
1890	103	149	1,290	955,393	11,380,210	2,196,364	35,367,102	3,393,900
Totals ..							£477,177,423	£40,160,550

ENGLAND AND WALES.

each Year, from 1862 to 1890 inclusive.

ources, and Corrected.)

Trade Expenses.	Trade Stock.	CAPITAL INVESTED IN		Profit Devoted to Education.	Amount of Reserve Fund.	YEAR.
		Industrial and Provident Societies, and other than Trade.	Joint-stock Companies.			
£	£	£	£	£	£	
127,749	....	....	....	....	....	1862
167,620	....	....	....	....	....	1863
163,147	....	....	....	....	....	1864
181,766	....	....	....	....	....	1865
219,746	....	....	....	....	....	1866
255,923	583,539	494,429	....	3,203	32,629	1867
294,451	671,165	137,397	166,398	3,636	33,109	1868
280,116	784,847	117,586	178,367	3,814	38,630	1869
311,910	912,102	126,736	204,876	4,275	52,990	1870
346,415	1 029,446	145,004	262,594	5,097	66,631	1871
419,567	1,219,092	310,712	380,043	6,461	79,292	1872
488,464	1,439,137	337,811	443,724	6,864	83,149	1873
517,445	1,572,264	386,640	510,057	7,486	98,732	1874
598,080	1,852,437	636,400	538,140	10,454	220,011	1875
137,053	2,377,380	....	....	....	....	1876
222,664	2,310,041	....	....	....	....	1877
315,364	2,286,795	....	....	....	....	1878
353,832	2,486,704	....	....	....	....	1879
285,875	2,512,039	+3,226,370	....	13,262	....	1880
....	2,585,443	....	....	13,314	....	1881
499,633	2,919,957	+3,919,455	....	14,070	....	1882
606,424	3,160,569	+4,113,995	....	15,903	....	1883
684,070	2,932,817	+4,118,751	....	18,062	....	1884
825,717	3,044,534	+4,811,819	....	19,374	....	1885
525,194	3,323,450	+3,475,319	....	18,440	....	1886
670,290	3,512,626	+4,112,807	....	19,707	....	1887
743,838	3,687,394	+4,868,141	....	22,391	....	1888
849,811	3,856,498	+5,386,444	....	23,388	....	1889
996,438	4,121,400	+6,407,701	....	24,919	....	1890

+ "Investments at end of year"—the class not stated.

CO-OPERATIVE

TABLE (4).—GENERAL SUMMARY of RETURNS

(Compiled from Official

YEAR.	NUMBER OF SOCIETIES			Number of Members.	CAPITAL AT END OF YEAR.	
	Regis- tered.	Not Making Returns.	Making Returns.		Share.	Loan.
1872	25	38	178	38,829	£ 181,793	£ 27,022.
1873	39	66	188	46,371	235,858	64,932
1874	15	50	216	54,431	250,026	88,920
1875	18	46	237	59,260	323,052	102,547
1876	10	57	228	63,310	314,577	144,953
1877	8	54	248	66,910	345,001	156,310
1878	4	54	218	70,119	381,028	180,208
1879	11	*40	208	68,967	373,728	171,173
1880	14	38	224	76,855	417,726	216,395
1881	12	9	259	90,430	505,731	278,438
1882	15	31	264	92,719	523,714	328,658
1883	13	7	292	106,034	630,768	373,081
1884	12	9	312	124,065	757,274	471,617
1885	11	..	317	132,597	837,771	536,567
1886	15	1	333	142,036	945,210	607,757
1887	11	1	334	152,866	1,063,647	654,252
1888	5	5	335	159,753	1,141,179	708,268
1889	8	6	340	171,555	1,253,117	825,406
1890	7	2	341	183,337	1,396,523	972,424
						Totals...£

* Not stated, but estimated at about 40.

SOCIETIES, SCOTLAND.

for each Year, from 1872 to 1890 inclusive.

Sources, and Corrected.)

Sales.	Net Profit.	Trade Expenses.	Trade Stock.	CAPITAL INVESTED IN		Profit Devoted to Education.	Amount of Reserve Fund.	YEAR.
				Industrial and Provident Societies and other than Trade	Joint-stock Companies.			
£	£	£	£	£	£	£	£	
1,595,120	126,314	58,279	163,971	17,765	2,803	235	14,309	..1872
1,972,426	150,302	67,302	188,265	32,591	5,315	243	19,573	..1873
2,062,516	155,087	76,103	208,789	31,661	12,024	463	18,097	..1874
2,277,812	176,795	87,038	241,888	31,425	15,314	425	21,919	..1875
2,290,452	201,117	142,339	286,662	..	..	..	..	..1876
2,676,225	241,991	158,621	337,268	..	..	..	..	..1877
2,666,565	252,446	178,478	322,934	..	..	..	..	..1878
2 549,565	258,152	182,450	370,510	..	..	..	..	..1879
3,102,460	266,839	142,428	366,793	203,565	17,407	648	..	..1880
3,649,155	322,012	..	466,222	..	..	503	..	..1881
3,901,246	339,324	190,190	480,524	†361,788	..	708	..	..1882
4,526,461	395,795	212,456	546,409	†376,482	..	885	..	..1883
4,791,862	484,893	249,227	639,409	†424,637	..	1,092	..	..1884
5,415,091	566,540	254,710	682,222	†613,500	..	1,338	..	..1885
5,937,070	590,785	272,502	745,381	†383,132	..	1,438	..	..1886
6,215,891	645,018	287,583	842,231	†377,867	..	1,673	..	..1887
7,392,381	685,446	297,728	863,349	†365,208	..	1,847	..	..1888
7,601,719	750,423	329,150	932,672	†445,991	..	2,067	..	..1889
8,300,261	879,019	361,209	1,015,180	†550,430	..	2,668	..	..1890
78,924,278	7,483,298							

† "Investments at end of year;" the class of investment is not stated.

CO-OPERATIVE SOCIETIES, IRELAND.
TABLE (5).—GENERAL SUMMARY OF RETURNS for each Year, from 1872 to 1890 inclusive.
(Compiled from Official Sources, and Corrected.)

YEAR.	NUMBER OF SOCIETIES			CAPITAL AT END OF YEAR.		Number of Members.	CAPITAL INVESTED IN			Trade Expenses.	Trade Stock.	Net Profit.	Profit Devoted to Education.	Amount of Reserve Fund.
	Registered.	Not Making Returns.	Making Returns.	INVESTED IN										
				Share.	Loan.		Industrial and Provident Societies.	Joint-stock Companies.						
1872.....	3	9	8	£ 1,815	£ 10	564	£ 19,775	£ 1,164	£ 1,284	£ ..	£ ..	£ ..	£ ..	£ ..
1873.....	1	3	5	1,443	90	464	16,161	863	774	..	..	..	..	..
1874.....	2	5	5	1,485	370	481	15,775	812	907	..	..	..	..	..
1875.....	1	2	7	9,638	5,370	792	15,519	1,725	1,069	1,350	..	..	..	67
1876.....	..	7	2	1,171	10	210	11,355	1,479	461	..	..	..	..	..
1877.....	1	6	4	7,490	10	505	16,434	2,190	676	973	..	..	..	..
1878.....	..	2	4	1,560	10	290	16,573	1,289	765	..	..	..	..	15
1879.....	1	..	6	7,615	200	537	17,170	1,482	856	..	..	..	45	71
1880.....	2	..	6	7,822	100	522	16,637	1,760	857	1,244	5	..	..	..
1881.....	4	..	10	2,889	..	834	19,058	1,533	1,039	1,668	8	..	3	..
1882.....	1	2	12	9,502	178	1,177	32,157	1,699	2,284	2,461	121	..	..	..
1883.....	..	5	9	9,140	241	1,052	32,587	2,375	1,924	2,577	7,211	..	..	..
1884.....	2	6	9	9,228	212	1,105	31,989	1,611	3,188	3,610	7,502	..	..	..
1885.....	..	3	10	9,121	326	1,043	32,754	2,535	2,112	2,736	7,801	..	..	..
1886.....	1	3	12	9,174	344	1,335	46,011	2,675	2,651	3,934	..	..	..	..
1887.....	3	5	12	11,147	904	1,425	45,892	2,407	2,501	5,979	809	..	..	..
1888.....	1	10	13	11,188	729	1,485	51,474	3,397	3,825	5,850	150	..	7	..
1889.....	4	5	13	10,626	205	1,693	56,613	2,580	3,814	5,962	483	..	..	..
1890.....	12	8	16	6,896	367	1,793	64,306	2,607	3,672	5,170	456	..	..	..
												</		

+ "Investments at end of year;" the class not stated.

CO-OPERATIVE SOCIETIES IN ENGLAND AND WALES WITH AN ANNUAL TRADE OF OVER £200,000.

(See Table 6, pages 738-9.)

THE number of societies under this head is twenty-eight, of which twelve are in Lancashire, nine in Yorkshire, three in Durham, and one each in Cheshire, Derbyshire, Devonshire, and Northumberland.

The combined sales of these twenty-eight societies amount to £17,381,240, being 44 per cent of the entire sales of societies in England and Wales. The Wholesale Society comes first with a business of £8,766,430, followed by Leeds Society and Corn Mill, with sales amounting to £802,936; next come Sowerby Bridge Corn Mill, Barnsley British, Bolton, Newcastle-on-Tyne, Oldham Industrial, Gateshead, Rochdale Corn Mill, and Huddersfield Societies, all of whose sales considerably exceed £300,000. The sales of the remaining eighteen societies are under that sum.

CO-OPERATIVE SOCIETIES IN ENGLAND AND WALES WITH AN ANNUAL TRADE OF BETWEEN £100,000 AND £200,000.

(See Table 7, page 740.)

NINE fresh societies make their appearance in table 7 this year, viz., Derwent Flour Mill, with a trade of £118,753; Barrow-in-Furness, £115,198; Ripley, £112,216; Stockton-on-Tees, £111,063; Stockport (Chestergate), £110,017; Cramlington, £109,571; Sowerby Bridge, £104,937; Sunderland, £103,857; Dudley, £100,908; whilst Crook is transferred from table 6, its sales having fallen below £200,000.

Of the thirty-eight societies coming under this head for 1891, Lancashire furnishes nine, Yorkshire eight, Durham nine, Cumberland two, and Cheshire, Leicestershire, Derbyshire, Lincolnshire, Essex, Gloucestershire, Glamorgan-shire, Kent, Northumberland, and Worcester one each. Their total sales are £5,085,743, or nearly 13 per cent of the total sales of societies in England and Wales.

CO-OPERATIVE SOCIETIES,

BIRD'S-EYE VIEW

TABLE (6), showing the Sales of all Societies which

NAMES OF SOCIETIES.		COUNTIES.	1872	1873	1874
			£	£	£
1	Rochdale Equitable Pioneers..	Lancashire..	267,572	287,212	298,889
2	Rochdale Co-op. Corn Mill....	—	215,584	240,836	244,864
3	Co-operative Wholesale Society	—	1,153,132	1,636,950	1,964,829
4	Sowerby Bridge Corn Mill....	Yorkshire ..	218,645	286,964	338,246
5	Halifax Industrial	—	235,730	264,137	273,186
6	Leeds Industrial and Corn Mill.	—	....	312,308	386,536
7	Oldham Industrial	Lancashire..	....	213,600	237,845
8	Bury District .....	—	....	209,382	223,622
9	Rochdale Cotton Manufact'ring	—	....	....	209,654
10	Halifax Corn Mill	Yorkshire ..	....	....	....
11	Oldham Star Corn Mill	Lancashire..	....	....	....
12	Manchester Equitable .....	—	....	....	....
13	Bolton .....	—	....	....	....
14	Gateshead.....	Durham....	....	....	....
TOTALS.....			2,090,663	3,451,389	4,177,671

NAMES OF SOCIETIES.		COUNTIES.	1882	1883	1884
			£	£	£
1	Rochdale Equitable Pioneers..	Lancashire..	274,627	276,457	262,270
2	Rochdale Co-op. Corn Mill....	—	286,966	259,396	209,912
3	Co-operative Wholesale Society	—	4,038,238	4,546,891	4,675,371
4	Sowerby Bridge Corn Mill....	Yorkshire ..	594,664	499,260	395,502
5	Halifax Industrial .....	—	....	206,058	224,780
6	Leeds Industrial and Corn Mill	—	438,478	486,784	490,332
7	Oldham Industrial	Lancashire..	320,336	335,672	344,647
8	Bury District	—	240,227	250,123	249,978
9	Rochdale Cotton Manufact'ring	—	....	....	....
10	Halifax Corn Mill	Yorkshire ..	....	....	240,363
11	Oldham Star Corn Mill	Lancashire..	....	....	....
12	Manchester Equitable.....	—	254,124	258,935	240,241
13	Bolton	—	254,414	295,437	326,201
14	Gateshead.....	Durham....	225,202	248,364	248,295
15	Barnsley British	Yorkshire ..	215,421	253,512	266,616
16	Oldham Equitable	Lancashire..	210,581	235,678	239,364
17	Huddersfield.....	Yorkshire ..	201,718	208,710	....
18	Newcastle-upon-Tyne	Nrthmbrlnd.	....	239,877	286,686
19	Accrington and Church	Lancashire..	....	....	200,608
20	Bishop Auckland.....	Durham....	....	....	....
21	Brighouse	Yorkshire ..	....	....	....
22	Bradford .....	—	....	....	....
23	Pendleton	Lancashire..	....	....	....
24	Burnley.....	—	....	....	....
25	Crook	Durham....	....	....	....
26	Plymouth	Devonshire..	....	....	....
27	Derby	Derbyshire..	....	....	....
28	Chester-le-Street	Durham....	....	....	....
29	Dewsbury	Yorkshire ..	....	....	....
30	Crewe Friendly	Cheshire ..	....	....	....
TOTALS.....			7,554,996	8,601,154	8,901,166

ENGLAND AND WALES.

OF SALES.

during the years 1872 to 1891, exceeded £200,000 a year.

1875	1876	1877	1878	1879	1880	1881	
£	£	£	£	£	£	£	
305,657	305,191	311,715	299,039	270,070	283,655	272,141	1
202,988	....	252,045	285,920	270,337	301,836	299,672	2
2,247,395	2,697,366	2,827,052	2,705,625	2,645,331	3,339,681	3,574,095	3
338,364	406,017	460,013	468,001	447,301	565,194	589,929	4
270,499	237,754	237,447	209,571	....	207,539	....	5
390,645	365,639	374,166	358,865	360,017	412,225	432,811	6
253,438	284,977	316,903	279,999	261,813	303,012	310,387	7
212,814	231,692	251,057	241,886	217,282	231,918	225,689	8
....	....	....	....	....	....	....	9
....	207,648	244,262	224,018	....	....	....	10
....	....	219,664	....	....	....	....	11
....	....	....	....	208,513	242,966	242,535	12
....	....	....	....	....	....	219,657	13
....	....	....	....	....	....	200,261	14
4,221,800	4,736,284	5,494,324	5,072,924	4,630,664	5,888,026	6,367,177	
1885	1886	1887	1888	1889	1890	1891	
£	£	£	£	£	£	£	
252,072	246,031	256,736	267,727	270,675	270,583	296,025	1
....	....	....	....	201,159	235,274	315,596	2
4,793,151	5,223,179	5,713,235	6,200,074	7,028,944	7,429,073	8,766,430	3
343,723	333,655	357,886	406,185	430,703	472,668	525,734	4
226,176	224,870	224,259	223,217	231,256	241,262	256,326	5
495,297	480,204	526,002	558,771	639,223	692,435	802,936	6
330,038	312,230	322,090	337,368	350,698	345,335	378,008	7
256,545	240,239	236,042	241,033	246,112	262,624	288,821	8
....	....	206,549	206,549	206,490	....	220,348	9
203,877	....	222,008	....	....	216,516	280,226	10
....	....	....	....	....	....	....	11
232,998	229,886	233,181	249,340	267,960	282,957	298,154	12
324,467	335,877	327,288	357,001	392,454	428,529	496,011	13
268,720	269,585	266,005	272,877	282,186	301,347	334,053	14
260,112	283,903	293,876	292,635	327,704	395,433	498,489	15
227,873	228,946	228,523	233,454	242,959	254,074	271,893	16
....	209,426	252,682	269,865	287,844	294,357	312,865	17
312,719	338,030	328,848	327,911	338,339	380,895	432,338	18
208,307	209,291	211,226	214,728	209,776	....	206,140	19
....	200,931	209,969	212,471	229,224	266,886	266,886	20
....	....	204,127	209,948	219,917	225,464	241,008	21
....	....	....	202,930	224,911	223,265	256,500	22
....	....	....	204,501	225,488	240,827	279,942	23
....	....	....	213,219	238,824	256,530	281,727	24
....	....	....	....	....	221,269	....	25
....	....	....	....	....	212,113	240,675	26
....	....	....	....	....	....	206,315	27
....	....	....	....	....	....	213,846	28
....	....	....	....	....	....	200,255	29
....	....	....	....	....	....	213,703	30
8,736,074	9,366,283	10,620,532	11,701,804	13,092,850	14,149,716	17,381,240	

CO-OPERATIVE SOCIETIES—ENGLAND AND WALES.

BIRD'S-EYE VIEW OF SALES.

TABLE (7), showing the SALES of all SOCIETIES which, during the years 1888 to 1891, were £100,000 and under £200,000 a year; also SALES of the same SOCIETIES for the year 1887.

No.	NAME OF SOCIETY.	COUNTY.	1881.	1888.	1889.	1890.	1891.
1	Crewe Friendly	Cheshire	£118,306	£148,217	£167,214	£187,837	(over)
2	Stockport (Chest'rgate)	"	38,026	....	....	....	£110,000
3	Carlisle	Cumberland..	77,092	....	100,614	106,112	127,000
4	Cleator Moor	"	131,310	147,735	157,731	144,694	134,000
5	Derby	Derbyshire ..	101,422	124,520	152,304	180,204	(over)
6	Ripley	"	50,707	....	....	....	112,000
7	Plymouth	Devonshire ..	100,181	166,978	184,733	(over)	(over)
8	Annfield Plain	Durham	34,629	104,242	118,370	148,232	177,000
9	Blaydon	"	96,114	171,422	160,494	157,161	168,000
10	Cornforth and Coxhoe.	"	26,197	....	....	103,938	117,000
11	Chester-le-Street	"	88,246	162,830	173,875	190,236	(over)
12	Crook	"	120,400	172,436	184,684	(over)	138,000
13	Derwent Flour Mill ..	"	60,604	....	....	....	118,000
14	Haswell	"	97,512	104,923	....	116,527	119,000
15	Jarrow Industrial	"	18,243	....	....	101,475	113,000
16	Stockton-on-Tees	"	43,221	....	....	....	111,000
17	Sunderland	"	54,951	....	....	....	103,000
18	Stratford	Essex	57,830	152,470	155,973	154,292	174,000
19	Cwmbach & Aberaman.	Glamorgan..	60,165	....	....	103,886	127,000
20	Gloucester	Gloucestersh.	74,339	122,931	115,350	112,943	121,000
21	Woolwich Royal Arsenal	Kent	39,598	118,929	126,078	132,697	174,000
22	Accrington and Church	Lancashire ..	170,969	....	....	199,550	....
23	Barrow-in-Furness	"	24,310	....	....	....	115,000
24	Burnley	"	46,134	(over)	(over)	(over)	(over)
25	Eccles	"	90,163	149,594	167,614	183,749	195,000
26	Failsworth	"	94,098	110,387	112,664	114,192	128,000
27	Farnworth & Kearsley.	"	53,012	....	....	104,586	121,000
28	Heywood	"	80,041	....	101,543	105,025	113,000
29	Leigh	"	109,518	136,774	132,280	108,557	167,000
30	Oldham Star Corn Mill.	"	184,022	187,651	135,650	....	....
31	Over Darwen Indus. ...	"	90,135	106,488	111,404	106,955	115,000
32	Pendleton	"	57,826	(over)	(over)	(over)	(over)
33	Preston	"	33,174	104,457	114,754	114,754*	133,000
34	Radcliffe & Pilkington.	"	85,237	124,488	135,500	140,261	149,000
35	Rochdale Manufact....	" .....	....	(over)	(over)	191,928	(over)
36	" Co-op. Corn Mill.	"	299,672	178,649	(over)	(over)	(over)
37	Leicester	Leicestershire	120,090	119,975	124,423	124,159	138,000
38	Lincoln	Lincolnshire..	67,471	126,329	134,378	147,557	175,000
39	Cramlington	Northmbrlnd.	56,284	....	....	....	109,000
40	Dudley	Worcestrshre.	1,654	....	....	....	100,000
41	Batley	Yorkshire ..	95,171	114,788	114,111	116,519	131,000
42	Bradford	"	141,647	(over)	(over)	(over)	(over)
43	Dewsbury	"	145,971	158,413	168,861	178,474	(over)
44	Halifax Flour	"	177,824	179,534	195,295	(over)	(over)
45	Heckmondwike	"	149,674	148,684	155,607	163,482	168,000
46	Keighley	"	70,964	118,865	131,735	146,693	159,000
47	Middlesbrough	"	55,400	104,526	113,799	123,096	125,000
48	Morley	"	87,154	....	104,221	115,394	123,000
49	Sowerby Bridge	"	78,567	....	....	....	104,000
50	Todmorden	"	93,089	118,460	123,777	127,359	134,000
51	Windhill	"	50,325	108,585	123,577	124,420	123,000
			4,298,689	4,094,280	4,298,613	4,676,944	5,085,000

* 1889.

SALES OF CIVIL SERVICE SUPPLY STORES.

	Civil Service Supply.	Civil Service (Haymarket).	New Civil Service.
	£	£	£
1871	625,305	....	....
1872	712,399	....	....
1873	819,428	....	....
1874	896,094	....	....
1875	925,332	....	....
1876	983,545	....	....
1877	946,780	....	....
1878	1,384,042	....	....
1879	1,474,923	....	....
1880	1,420,619	514,399	....
1881	1,483,507	520,155	139,367
1882	1,603,670	497,650	....
1883	1,682,655	329,805	149,478
1884	1 691,455	481,560	148,975
1885	1,758,648	468,992	150,948
1886	1,743,306	465,096	150,383
1887	1,732,483	469,456	155,000
1888	1,763,814	473,817	158,028
1889	1,775,500	481,120	158,317
1890	1,789,397	481,352	164,160
1891	1,817,779	475,066	178,761

Above we give the Sales of the Civil Service Supply Stores as distinct from the ordinary distributive societies appearing in the previous tables.

PUBLIC ACTS OF PARLIAMENT PASSED DURING THE
SESSION 1891-92.

* * *The figure before each Act denotes the Chapter.*

55 AND 56 OF VICTORIA.

1. **A**N Act to transfer the site of Millbank Prison to the management of the Commissioners of Works.
2. An Act to provide, during twelve months, for the discipline and regulation of the Army.
3. An Act to apply certain sums out of the Consolidated Fund to the service of the years ending March 31, 1891-92-93.
4. An Act to render penal the inciting infants to bet or wager or to borrow money.
5. An Act to amend the Poor Law (Ireland) Acts.
6. An Act to provide for the recognition in the United Kingdom of probates and letters of administration granted in British possessions.
7. An Act to amend the Labourers (Ireland) Acts, for the purpose of providing increased allotments of land for the agricultural labourers in Ireland.
8. An Act to enact a close time for hares during breeding season.
9. An Act to amend the Act of the 8 and 9 Vic., chap. 109, intituled "An Act to amend the Law Concerning Games and Wagers."
10. An Act to facilitate the citation of sundry Acts of Parliament.
11. An Act to amend the Mortmain and Charitable Uses Act, 1888.
12. An Act to amend the law in regard to roads and bridges in Scotland.
13. An Act to amend the Conveyancing and Law of Property Act, 1881.
14. An Act to amend the Indian Councils Act, 1861.
15. An Act to authorise the Councils of counties and county boroughs to contribute to the expenses of inquiries into certain charities.
16. An Act to grant and alter certain duties of Customs and Inland Revenue, and to amend the law relating to Customs and Inland Revenue.
17. An Act to simplify the forms of extracts of decrees in the Sheriff Courts of Scotland.
18. An Act for authorising County and Borough Councils to purchase franchises of weights and measures.
19. An Act for further promoting the revision of the Statute Law, by repealing enactments which have ceased to be in force or have become unnecessary.
20. An Act to apply a sum out of the Consolidated Fund to the service of the year ending March 31, 1893.

PUBLIC ACTS OF PARLIAMENT PASSED DURING THE SESSION 1891-92.

21. An Act to regulate the sittings of the High Court of Justiciary, Scotland.
22. An Act to amend the Housing of the Working Classes Act, 1890, as to Scotland.
23. An Act to consolidate enactments relating to the marriage of British subjects outside the United Kingdom.
24. An Act to amend the Post-office Act, 1891, in relation to its application to Scotland, and to apply that Act to the Isle of Man and to the Channel Islands.
25. An Act to amend the Taxes Regulation of Remuneration Act, 1891.
26. An Act to make provision respecting advances made by the National Debt Commissioners under the National Debt (Redemption) Act, 1889.
27. An Act to authorise the release of certain deposits and the cancellation of certain bonds made or given to secure the performance of undertakings authorised by Parliament.
28. An Act to amend the law respecting Customs Duties in the Isle of Man.
29. An Act to facilitate the acquisition and holding of land by institutions for promoting technical and industrial instruction and training.
30. An Act to amend the Alkali, &c., Works Regulation Act, 1881.
31. An Act to facilitate the acquisition of small agricultural holdings.
32. An Act for better enforcing discipline in the case of crimes and other offences against morality committed by clergymen.
33. An Act to apply a sum out of the Consolidated Fund to the service of the year ending March 31, 1893, and to appropriate the supplies granted in this session of Parliament.
34. An Act for dissolving the corporation styled the Naval Knights of Windsor, of the foundation of Samuel Travers, Esq., and for regulating the application of property thereof, and for applying and amending the Greenwich Hospital Acts.
35. An Act to amend the Colonial Stock Act, 1877, so far as regards the mode of transfer of stock to which that Act applies.
36. An Act to remove doubts as to the meaning of the Forged Transfers Act, 1891.
37. An Act to amend the Merchant Shipping Acts.
38. An Act to alter the period for which certain police returns are required to be made.
39. An Act to amend the National Debt Act, 1870.
40. An Act to amend the Acts relating to superannuation allowances and gratuities to persons in the public service so far as respects the computation of successive service in different offices, where not all subject to the Superannuation Acts, 1834 to 1887, and as respects the application of Section 6 of the Act, 1887, to employments of profit under the Government of India.
41. An Act to provide for expenses incurred by members of Boards of Management of Poor Law District Schools in Ireland.
42. An Act to improve national education in Ireland.
43. An Act to consolidate and amend certain enactments relating to the acquisition of land for military purposes.

PUBLIC ACTS OF PARLIAMENT PASSED DURING THE SESSION 1891-92.

44. An Act to amend the Railway and Canal Traffic Act, 1888.
45. An Act to provide for the increase of the salaries of certain Land Commissioners in Ireland, and for other purposes connected with the Land Commission.
46. An Act to amend the Ancient Monuments Protection Act, 1882.
47. An Act to amend the Contagious Diseases (Animals) Acts, 1878-90.
48. An Act for making further provision respecting certain payments to the Banks of England and Ireland, and for other purposes connected with those banks.
49. An Act to authorise the Treasury to guarantee the payment of a loan to be raised by the Government of the colony of Mauritius.
50. An Act to amend the law relating to salmon and fresh-water fisheries.
51. An Act to make provision in regard to the distribution and application of sums from time to time paid to the Local Taxation (Scotland) account, and in regard to the fee grant in Scotland.
52. An Act to authorise an advance to the Government of the Province of British Columbia.
53. An Act to consolidate and amend the law relating to public libraries.
54. An Act to facilitate the provision of allotments for the labouring classes in Scotland.
55. An Act for regulating the police and sanitary administration of towns and populous places, and for facilitating the union of police and municipal administration in burghs in Scotland.
56. An Act to amend the law relating to the appointment of coroners and deputy-coroners in counties and boroughs.
57. An Act to amend the Public Health Acts in relation to private street improvement expenses.
58. An Act to amend the law respecting accumulations.
59. An Act to make further provision respecting telegraphs.
60. An Act to continue various expiring laws.
61. An Act to grant money for the purpose of certain local loans, and for other purposes relating to local loans.
62. An Act to amend the law relating to the employment of young persons in shops.
63. An Act to explain and amend the Local Taxation (Customs and Excise) Act, 1890, with respect to contributions for technical instruction in Scotland.
64. An Act for the better protection of witnesses giving evidence before any Royal Commission or any Committee of either House of Parliament, or in other public inquiries.
65. An Act to amend the law relating to the drainage and improvement of land in Ireland, and for other purposes.

IMPORT DUTIES IN THE UNITED KINGDOM.

TABLE showing the several ARTICLES subject to IMPORT DUTIES in the UNITED KINGDOM, and the RATE of DUTY levied upon each ARTICLE, according to the TARIFF in operation during the year 1891-92.

ARTICLES.		Rates of Duty.		
		£	s.	d.
Cocoa.....	per lb.	0	0	1
Husks and Shells	per cwt.	0	2	0
Cocoa or Chocolate, ground, prepared, or in any way manufactured	per lb.	0	0	2
Coffee, raw.....	per cwt.	0	14	0
Kiln-dried, roasted, or ground.....	per lb.	0	0	2
Coffee and Chicory, mixed	„	0	0	2
CHICORY :—				
Raw or kiln-dried	per cwt.	0	13	3
Roasted or ground	per lb.	0	0	2
FRUIT :—				
Figs and Fig Cake, Plums, Prunes, and Raisins.....	per cwt.	0	7	0
Currants	„	0	2	0
TEA.....	per lb.	0	0	4
TOBACCO—Unmanufactured, Stemmed or Unstemmed :—				
Containing in every 100lbs. { 10lbs. or more of moisture	„	0	3	2
weight thereof { less than 10lbs. of moisture	„	0	3	6
TOBACCO—Manufactured :—				
Cigars.....	„	0	5	0
Cavendish or Negrohead	„	0	4	6
Snuff containing in every { more than 13lbs. of moisture	„	0	3	9
100lbs. weight thereof { not more than 13lbs. moisture	„	0	4	6
Other Manufactured Tobacco, and Cavendish or Negro-head Manufactured in Bond from Unmanufactured Tobacco	„	0	4	0

IMPORT DUTIES IN THE UNITED KINGDOM.

* ARTICLES.		Rates of Duty.		
		£	s.	d.
WINE :—				
Imported in Casks and Bottles—				
Not exceeding 30° of Proof Spirit	per gallon.	0	1	0
Exceeding 30° but not exceeding 42° of Proof Spirit ..	„	0	2	6
And for every degree or part of a degree beyond the highest above charged, an additional duty	„	0	0	3
Additional duty on Sparkling Wine, according to Alcoholic strength—				
If proved not to exceed 15s. a gallon market value	„	0	1	0
If exceeding 15s. a gallon market value	„	0	2	6
Beer and Ale, the worts of which were, before fermentation, of a specific gravity of 1,055°	per barrel of 36 gal.)	0	6	6
And so in proportion for any difference in gravity.				
BEER, MUM, AND SPRUCE :—				
The worts of which were, before fermentation, of a specific gravity—				
Not exceeding 1,215°	„	1	6	0
Exceeding 1,215°	„	1	10	6
SPIRITS AND STRONG WATERS :—				
For every gallon, computed at hydrometer proof, of Spirits of any description (except Perfumed Spirits), including Naphtha or Methylic Alcohol purified so as to be potable, and mixtures containing Spirits	per proof gallon.	0	10	10
For every gallon of Perfumed Spirits	per gallon.	0	17	3
Liqueurs, Cordials, or other preparations containing Spirits, in Bottle, not tested for strength	„	0	14	8
Chloroform	per lb.	0	3	1
Chloral Hydrate	„	0	1	3
Collodion	per gallon.	1	5	0
Ether, Acetic	per lb.	0	1	10
Ether, Butyric	per gallon.	0	15	8
Ether, Sulphuric	„	1	6	2
Ethyl, Iodide of	„	0	13	7
Soap, Transparent, in the manufacture of which Spirit has been used	per lb.	0	0	3
CARDS, Playing	{ per doz.) packs. }	0	3	9

* The total number of articles and subdivisions of articles in the English Tariff of Import Duties was 53 in May, 1875, as compared with 397 in 1859, and 1,043 in 1910. No Export Duties are levied in the United Kingdom.

INCOME TAX RATES FROM ITS FIRST IMPOSITION IN 1842 TO THE PRESENT TIME.

From and to April 5th.	Income free under.	On £100 to £150.	On £100 and upw'ds.	Chancellor of the Exchequer.	Premier.
	£	Rate in the £			
1842 to 1846	150	—	7d.	Henry Goulburn.	Sir Robert Peel.
1846 „ 1852	Do.	—	7d.	Sir Charles Wood.	Lord John Russell.
1852 „ 1853	Do.	—	7d.	Benjamin Disraeli.	Earl of Derby.
1853 „ 1854	100	5d.	7d.	William E. Gladstone.	Earl of Aberdeen.
1854 „ 1855	Do.	10d.	1s. 2d.	Do.	Do.
1855 „ 1857	Do.	11½d.	1s. 4d.	Sir G. Cornwall Lewis	Viscount Palmerston.
1857 „ 1858	Do.	5d.	7d.	Do.	Do.
1858 „ 1859	Do.	5d.	5d.	Do.	Do.
1859 „ 1860	Do.	6½d.	9d.	Benjamin Disraeli.	Earl of Derby.
1860 „ 1861	Do.	7d.	10d.	William E. Gladstone.	Viscount Palmerston.
1861 „ 1863	*100	6d.	9d.	Do.	Do.
1863 „ 1864	Do.	7d.		Do.	Do.
1864 „ 1865	Do.	6d.		Do.	Do.
1865 „ 1866	Do.	4d.		Do.	Do.
1866 „ 1867	Do.	4d.		Do.	Do.
1867 „ 1868	Do.	5d.		Do.	Earl Russell.
1868 „ 1869	Do.	6d.		Benjamin Disraeli.	Earl of Derby.
1869 „ 1870	Do.	5d.		George Ward Hunt.	Benjamin Disraeli.
1870 „ 1871	Do.	4d.		Robert Lowe.	William E. Gladstone.
1871 „ 1872	Do.	6d.		Do.	Do.
1872 „ 1873	Do.	4d.		Do.	Do.
1873 „ 1874	Do.	3d.		Do.	Do.
1874 „ 1876	Do.	2d.		Sir Stafford Northcote.	Benjamin Disraeli.
1876 „ 1878	†150	3d.		Do.	Earl of Beaconsfield.
1878 „ 1880	Do.	5d.		Do.	Do.
1880 „ 1881	Do.	6d.		William E. Gladstone.	William E. Gladstone.
1881 „ 1882	Do.	5d.		Do.	Do.
1882 „ 1883	Do.	6½d.		Do.	Do.
1883 „ 1884	Do.	5d.		Hugh C. E. Childers.	Do.
1884 „ 1885	Do.	6d.		Do.	Do.
1885 „ 1886	Do.	8d.		Sir M. Hicks-Beach.	Marquis of Salisbury.
1886 „ 1887	Do.	8d.		Sir William Harcourt.	William E. Gladstone.
1886 „ 1887	Do.	8d.		Ld. Randolph Churchill.	Marquis of Salisbury.
1887 „ 1888	Do.	7d.		G. J. Goschen.	Do.
1888 „ 1889	Do.	6d.		Do.	Do.
1889 „ 1890	Do.	6d.		Do.	Do.
1890 „ 1891	Do.	6d.		Do.	Do.
1891 „ 1892	Do.	6d.		Do.	Do.
1892 „ 1893	Do.	6d.		Sir W. Harcourt.	William E. Gladstone.

* Differential rate upon scale of incomes abolished. Incomes under £100 are exempt; and incomes of £100 and under £199 per annum have an abatement from the assessment of £60:—thus, £100 pays on £40; £160 upon £100; £199 upon £139; but £200 pays on £200.

† Under £150 exempt; if under £400 the tax is not chargeable upon the first £120.

AN ACCOUNT OF THE PUBLIC INCOME AND EXPENDITURE OF THE UNITED KINGDOM FOR THE
YEAR ENDING MARCH 31ST, 1892;

DISTINGUISHING THE SEVERAL AMOUNTS RAISED BY TAXATION AND THOSE RECEIVED FROM OTHER SOURCES OF REVENUE.

INCOME.		£	EXPENDITURE.		£
TAXATION :—			PUBLIC DEBT :—		
Customs	19,736,000		Interest and other Charges		29,009,499
Excise	25,610,000		Army	17,259,000	
Land Tax and House Duty	2,484,000		Navy	14,150,000	
Property and Income Tax	13,810,000		Post-office	6,126,481	
Stamps	13,700,000	75,340,000	Telegraphs	2,489,000	
			Packet Service	701,136	40,725,617
SERVICES UNDERTAKEN BY THE CROWN :—			CIVIL SERVICES—VARIOUS PAYMENTS :—		
Postal	10,150,000		Civil Departments	17,500,709	
Telegraphs	2,480,000		Customs	897,924	
Miscellaneous	169,271	12,799,271	Inland Revenue	1,794,024	20,192,657
CIVIL SERVICES—VARIOUS RECEIPTS :—					
Civil Departments, &c.	980,984				
Fee and Patent Stamps	828,830				
Customs	51,170				
Inland Revenue	30,684	1,891,668			
MISCELLANEOUS :—					
Interest on Advances, &c.	255,203				
Crown Lands—Net Rents	430,000				
Profits from Bank of England	168,879				
Profit from Savings Banks	65,662				
Various Receipts	44,103	963,847			1,067,013
		£90,994,786	Excess of Income over Expenditure....		£90,994,786

AVERAGE PRICE PER £100 of the THREE PER CENT CONSOLIDATED STOCK of the PUBLIC FUNDS of the UNITED KINGDOM, in EACH MONTH in EACH YEAR from 1876 to 1888, and of the NEW TWO-AND-THREE-QUARTER PER CENT CONSOLIDATED STOCK MONTHLY from MARCH, 1888, to DECEMBER, 1891.

MONTHS.	New 2½ per cent Consolidated Stock.																
	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1888.	1889.	1890.	1891.
January....	£ 93½	£ 95¼	£ 95¾	£ 95¾	£ 97¾	£ 98½	£ 99½	£ 101½	£ 101¼	£ 99¾	£ 99½	£ 100¾	£ 102¼	£ ..	£ 98½	£ 97½	£ 96¾
February...	94¾	95¼	95½	96¼	98½	98½	99¾	102¼	101½	99¼	100½	100¾	102½	..	99	97½	97½
March.....	94¾	96¾	95¼	96¾	97¾	99¾	100¾	102½	101½	97¾	100½	101½	101¼	100¾	97¾	97¼	97½
April	94½	95¾	94½	98½	98½	100½	101½	102½	102½	96¼	100½	102½	101	100½	98½	98	96½
May.....	96	94½	96½	98½	99¼	102½	102	101½	101½	99¼	101½	103½	101½	99¼	99	98½	95¼
June	94½	94½	95½	97¼	98½	100½	100¼	100½	100½	99¾	100½	101½	100½	99½	98½	97½	95½
July.....	95½	94½	95½	97¾	98½	101½	99½	99½	100½	99¾	101½	101½	100½	99½	98½	96½	95¾
August	96¾	95½	94½	97¾	97½	100¼	99¾	99¾	100½	100	101½	101½	100¼	99¾	98½	96¼	96
September..	95¾	95½	94½	97¾	97¾	99½	99¾	100½	101½	100½	100½	101½	100½	98	97	95½	94½
October....	95¾	95¾	94½	98	98½	98½	101½	101½	100½	100½	100½	102½	100½	97¼	97	94½	94½
November...	95¾	96½	95½	98½	99½	100½	102½	101½	100½	100½	101½	103½	101	97	97	94½	95
December..	94	95¾	94½	97¾	98¾	99½	100½	100½	99¾	100	100½	101½	99¾	96½	97½	95½	95½
Average for the year..)	95	95¾	95½	97½	98½	100	100½	101½	101	99¾	100½	101½	101	..	98	96½	95¾

AVERAGE MINIMUM RATE PER CENT OF DISCOUNT CHARGED BY THE BANK OF ENGLAND, IN EACH MONTH
in EACH YEAR from 1876 to 1891.

MONTHS.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	MONTHS.
Jan.....	4 $\frac{5}{8}$	2	3 $\frac{1}{4}$	4 $\frac{1}{2}$	3	3 $\frac{5}{16}$	5 $\frac{1}{16}$	4 $\frac{3}{4}$	3	5	3 $\frac{3}{8}$	5	3 $\frac{2}{8}$	4 $\frac{1}{16}$	6	4	Jan.
Feb.....	4	2	2	3	3	3 $\frac{1}{4}$	5 $\frac{1}{16}$	3 $\frac{3}{4}$	3 $\frac{1}{2}$	5	2 $\frac{1}{4}$	4	2 $\frac{2}{8}$	3	5 $\frac{1}{4}$	3	Feb.
March....	3 $\frac{7}{8}$	2	2 $\frac{1}{8}$	2 $\frac{3}{8}$	3	3	4	3	3 $\frac{6}{16}$	3 $\frac{5}{8}$	2	3 $\frac{1}{2}$	2 $\frac{1}{8}$	3	4 $\frac{1}{8}$	3	March.
April....	2 $\frac{7}{8}$	2	3	2 $\frac{1}{8}$	3	3	3	3	2 $\frac{1}{2}$	3 $\frac{1}{2}$	2	2 $\frac{3}{8}$	2	2 $\frac{3}{8}$	3 $\frac{2}{8}$	3 $\frac{1}{4}$	April.
May.....	2	2 $\frac{7}{8}$	3	2	3	2 $\frac{1}{2}$	3	3 $\frac{1}{16}$	2 $\frac{1}{2}$	2 $\frac{2}{3}$	2 $\frac{1}{8}$	2	2 $\frac{1}{8}$	2 $\frac{1}{2}$	3	4 $\frac{1}{2}$	May.
June.....	2	3	2 $\frac{1}{2}$	2	2 $\frac{3}{4}$	2 $\frac{1}{2}$	3	4	2 $\frac{1}{8}$	2	2 $\frac{3}{8}$	2	2 $\frac{3}{8}$	2 $\frac{1}{2}$	3 $\frac{1}{8}$	3 $\frac{3}{8}$	June.
July.....	2	2 $\frac{1}{4}$	3 $\frac{1}{2}$	2	2 $\frac{1}{2}$	2 $\frac{1}{2}$	3	4	2	2	2 $\frac{1}{2}$	2	2 $\frac{1}{2}$	2 $\frac{1}{2}$	4	2 $\frac{1}{2}$	July.
August...	2	2 $\frac{1}{8}$	4 $\frac{5}{8}$	2	2 $\frac{1}{2}$	2 $\frac{1}{16}$	3 $\frac{1}{16}$	4	2	2	2 $\frac{3}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{8}$	3	4 $\frac{3}{8}$	2 $\frac{1}{2}$	August.
Sept.....	2	3	5	2	2 $\frac{1}{2}$	4	4 $\frac{7}{16}$	3 $\frac{1}{16}$	2	2	3 $\frac{1}{2}$	4	3 $\frac{1}{8}$	4 $\frac{1}{16}$	4 $\frac{1}{8}$	2 $\frac{3}{8}$	Sept.
October..	2	4 $\frac{1}{2}$	5 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3 $\frac{3}{16}$	5	3	2 $\frac{5}{8}$	2	3 $\frac{3}{8}$	4	5	5	5	3	October.
Nov.....	2	4 $\frac{7}{8}$	5 $\frac{5}{8}$	2 $\frac{7}{8}$	2 $\frac{1}{2}$	5	5	3	4 $\frac{1}{8}$	2 $\frac{18}{16}$	4	4	5	5	5 $\frac{4}{8}$	4	Nov.
Dec.....	2	4	5	3	2 $\frac{7}{8}$	5	5	3	5	3 $\frac{1}{2}$	4 $\frac{1}{2}$	4	5	5	5 $\frac{1}{16}$	3 $\frac{3}{8}$	Dec.
Average for the year....	2 $\frac{5}{8}$	2 $\frac{7}{8}$	3 $\frac{3}{4}$	2 $\frac{3}{8}$	2 $\frac{3}{4}$	3 $\frac{1}{2}$	4 $\frac{1}{8}$	3 $\frac{9}{16}$	2 $\frac{1}{16}$	3	3	3 $\frac{1}{3}$	3 $\frac{1}{8}$	3 $\frac{1}{2}$	4 $\frac{1}{2}$	3 $\frac{1}{8}$	Average for the year.

DEALINGS WITH LAND.

SCALE OF LAW COSTS ON THE SALE, PURCHASE, OR MORTGAGE OF
REAL PROPERTY, HOUSES, OR LAND.

	For the 1st £1,000.	For the 2nd and 3rd £1,000.	For the 4th and each subsequent £1,000 up to £10,000.	For each subsequent £1,000 up to £100,000.*
	Per £100. £ s. d.	Per £100. £ s. d.	Per £100. £ s. d.	Per £100. £ s. d.
Vendor's solicitor for negotiating a sale of property by private contract	1 0 0	1 0 0	0 10 0	0 5 0
Do., do., for conducting a sale of pro- perty by public auction, including the conditions of sale—				
When the property is sold	1 0 0	0 10 0	0 5 0	0 2 6
When the property is not sold, then on the reserve price†	0 10 0	0 5 0	0 2 6	0 1 3
Do., do., for deducing title to freehold, copyhold, or leasehold property, and perusing and completing conveyance (including preparation of contract, or conditions of sale, if any)	1 10 0	1 0 0	0 10 0	0 5 0
Purchaser's solicitor for negotiating a pur- chase of property by private contract ..	1 0 0	1 0 0	0 10 0	0 5 0
Do., do., for investigating title to free- hold, copyhold, or leasehold property, and preparing and completing con- veyance (including perusal and com- pletion of contract, if any)	1 10 0	1 0 0	0 10 0	0 5 0
Mortgagor's solicitor for deducing title to freehold, copyhold, or leasehold property, perusing mortgage, and completing	1 10 0	1 0 0	0 10 0	0 5 0
Mortgagee's solicitor for negotiating loan.	1 0 0	1 0 0	0 5 0	0 2 6
Do., do., for investigating title to freehold, copyhold, or leasehold property; and preparing and completing mortgage...	1 10 0	1 0 0	0 10 0	0 5 0

Vendor's or mortgagor's solicitor for procuring execution and acknowledgment
of deed by a married woman, £2. 10s. extra.

Where the prescribed remuneration would amount to less than £5 the prescribed
remuneration is £5, except on transactions under £100, in which case the remunera-
tion of the solicitor for the vendor, purchaser, mortgagor, or mortgagee, is £3.

* Every transaction exceeding £100,000 to be charged for as if it were for £100,000.

† A minimum charge of £5 to be made whether a sale is effected or not.

DEALINGS WITH LAND.

Scale of Law Costs as to Leases, or Agreements for Leases, at Rack Rent (other than a Mining Lease, or a Lease for Building Purposes, or Agreement for the same).

LESSOR'S SOLICITOR FOR PREPARING, SETTLING, AND COMPLETING
LEASE AND COUNTERPART.

Where the rent does not exceed £100, £7. 10s. per cent on the rental, but not less in any case than £5.

Where the rent exceeds £100, and does not exceed £500, £7. 10s. in respect of the first £100 of rent, and £2. 10s. in respect of each subsequent £100 of rent.

Where the rent exceeds £500, £7. 10s. in respect of the first £100 of rent, £2. 10s. in respect of each £100 of rent up to £500, and £1 in respect of every subsequent £100.

Lessee's solicitor for perusing draft and completing—one-half of the amount payable to the lessor's solicitor.

Scale of Law Costs as to Conveyances in Fee, or for any other Freehold Estate reserving rent, or Building Leases reserving rent, or other Long Leases not at Rack Rent (except Mining Leases), or Agreements for the same respectively.

VENDOR'S OR LESSOR'S SOLICITOR FOR PREPARING, SETTLING, AND COM-
PLETING CONVEYANCE AND DUPLICATE, OR LEASE AND COUNTERPART.

Amount of Annual Rent.	Amount of Remuneration.
Where it does not exceed £5 ..	£5.
Where it exceeds £5, and does not exceed £50	The same payment as on a rent of £5, and also 20 per cent on the excess beyond £5.
Where it exceeds £50, but does not exceed £150	The same payment as on a rent of £50, and 10 per cent on the excess beyond £50.
Where it exceeds £150	The same payment as on a rent of £150, and 5 per cent on the excess beyond £150.

Where a varying rent is payable the amount of annual rent is to mean the largest amount of annual rent.

Purchaser's or lessee's solicitor for perusing draft and completing—one-half of the amount payable to the vendor's or lessor's solicitor.

THE DEATH DUTIES.

PROBATE AND ACCOUNT DUTY.

THIS duty is now regulated by 44 Vict., cap. 12 (1881), and 52 Vict., cap. 7, and is payable on personal estate on the Affidavits for Probate and Letters of Administration; and also on the accounts which have to be rendered in special cases of benefits accruing to anyone by reason of the death of another person.

The rates of duty are as follow:—

Under £100 no duty.

Where value exceeds £100 and not £500, £1 for each £50, or fraction of £50.

„ „ £500 „ £1,000, £1. 5s. „ „ „

„ „ £1,000, £3 for each £100, or fraction of £100.

Where the gross value of an estate does not exceed £300, a fixed duty of 30s. only is payable to cover all duties.

In the case of persons dying domiciled in the United Kingdom, debts and funeral expenses are deducted before calculating the duty except where the value of the whole personal estate does not exceed £300.

ESTATE DUTY.

This duty was created and is regulated by 52 Vict., cap. 7, and is payable in respect of personal and real estate.

With regard to personal estate, the duty is payable where on application for probate or administration granted on or after 1st June, 1889, the value of the estate and effects in respect whereof probate duty is charged exceeds £10,000, or where the value of personal or movable property included in an account delivered on or after 1st June, 1889, exceeds £10,000.

With regard to real estate, the duty is payable where the value of any succession upon the death of any person dying on or after 1st June, 1889, exceeds £10,000, and where the value of any succession to real property under the will or intestacy of any person so dying does not exceed £10,000, but such value together with the value of any other benefit taken by the successor under such will or intestacy exceeds £10,000.

The rate of duty payable is £1 for each £100 or a fraction of £100 of value of the estate and effects, or of the personal or movable property, or of the succession, as the case may be.

THE DEATH DUTIES.

LEGACY DUTY.

This duty is regulated by 55 Geo. iii., cap. 184, and 51 Vict., cap. 8, and is payable in respect of personal estate.

The rates of duty are as follows:—

DESCRIPTION OF LEGATEE.	If payable out of Real Estate, and the deceased died before 1st July, 1888, or out of Personal Estate whenever deceased died.	If payable out of Real Estate, and the deceased died on or after 1st July, 1888.
Children of the deceased and their descendants, or the father or mother or any lineal ancestor of the deceased, or the husbands or wives of any such persons	£1 per cent.	£1. 10s. per cent.
Brothers and sisters of the deceased and their descendants, or the husbands or wives of any such persons	£3 „	£4. 10s. „
Brothers and sisters of the father or mother of the deceased and their descendants, or the husbands or wives of any such persons	£5 „	£6. 10s. „
Brothers and sisters of a grandfather or grandmother of the deceased and their descendants, or the husbands or wives of any such persons	£6 „	£7. 10s. „
Any person in any other degree of collateral consanguinity, or strangers in blood to the deceased	£10 „	£11. 10s. „

SUCCESSION DUTY.

This duty is regulated by 16 and 17 Vict., cap. 51, and 51 Vict., cap. 8, and is payable in respect of real estate, including leaseholds.

The rates of duty are as follows:—

DESCRIPTION OF SUCCESSOR.	Where the deceased died before the 1st July, 1888.	Where the deceased died on or after the 1st July, 1888.
Lineal issue or lineal ancestor of the predecessor, or the husband or wife of any such person	£1 per cent.	£1. 10s. per cent.
Brothers and sisters of the predecessor and their descendants, or the husbands or wives of any such persons ..	£3 „	£4. 10s. „
Brothers and sisters of the father or mother of the predecessor and their descendants, or the husbands or wives of any such persons	£5 „	£6. 10s. „
Brothers and sisters of a grandfather or grandmother of the predecessor and their descendants, or the husbands or wives of any such persons	£6 „	£7. 10s. „
Persons of more remote consanguinity, or strangers in blood	£10 „	£11. 10s. „

THE DEATH DUTIES.

The husband or wife of deceased is exempt from legacy or succession duty.

Legacy duty is payable on the capital value.

Succession duty is paid on the value of an annuity equal to the net income of the property, which annuity would continue during the life of the successor.

Where the whole personal estate does not exceed £300 no legacy duty is payable.

All pecuniary legacies, residues, or share of residue, although not of the amount of £20, are subject to duty.

In case of persons dying leaving issue, the probate duty covers all legacy duty which would formerly have been paid by such issue.

Where the principal value of the whole succession or successions does not exceed £100 no succession duty is payable.

Persons domiciled in the United Kingdom pay legacy duty on all movable property wherever situate.

Persons domiciled abroad are altogether exempt from legacy duty on movable property.

By the Customs and Inland Revenue Act, 1885 (48 and 49 Vict., c. 51), a yearly duty of 5 per cent is to be levied upon the net annual value, income or profits, of the real and personal property of any body, corporate or incorporate. But there are a number of exemptions, the most important of which are:—Property belonging to the counties and certain other public bodies, charities, friendly societies, savings banks, and trading concerns.

¶ THE INTESTATES' ESTATES ACT, 1890,

PROVIDES that when a man dies after the first of September, 1890, leaving a widow but no issue, if the net value of his real and personal estate does not exceed £500 all shall belong to the widow. If the estate exceeds £500 the widow is to have a charge on it for that amount, with interest at 4 per cent until payment. This Act does not apply to Scotland.

RULES BY WHICH THE PERSONAL ESTATES OF PERSONS DYING INTESTATE ARE DISTRIBUTED.

If the Intestate die, leaving

His representatives take in the proportion following:—

Wife and child, or children	One-third to wife, rest to child or children; and if children are dead, then to the representatives (that is, their lineal descendants), except such child or children, not heirs-at-law, who had estate by settlement of intestate, or were advanced by him in his lifetime, equal to other shares.
☛ Wife only, no relations	Half to wife, rest to Crown.
☛ Wife, no near relations	Half to wife, rest to next-of-kin in equal degree to intestate, or their legal representatives.
No wife or child	All to next-of-kin and their legal representatives
No wife, but child, children, or representatives of them, whether such child or children by one or more wives	All to him, her, or them.
Children by two wives	Equally to all.
If no child, children, or representatives of them	All to next-of-kin in equal degree to intestate.
Child, and grandchild by deceased child	Half to child, half to grandchild, who takes by representation.
Husband	Whole to him.
Father, and brother or sister	Whole to father.
Mother, and brother or sister	Whole to them equally.
☛ Wife, mother, brothers, sisters, and nieces (daughters of deceased brother or sister)	Half to wife, residue to mother, brothers, sisters, and nieces.
☛ Wife, and father	Half to wife, and half to father.
☛ Wife, brothers or sisters, and mother	Half to wife, half to brothers or sisters, and mother
Mother, but no wife, child, father, brother, sister, nephew, or niece	The whole to mother.
☛ Wife, and mother	Half to wife, half to mother.
Brother or sister of whole blood, and brother or sister of half blood	Equally to both.
Posthumous brother or sister, and mother	Equally to both.
Posthumous brother or sister, and brother or sister born in lifetime of father	Equally to both.
Father's father, and mother's mother	Equally to both.
Uncle or aunt's children, and brother's or sister's grandchildren	Equally to all.
Grandmother, uncle, or aunt	All to grandmother.
Two aunts, nephew, and niece	Equally to all.
Uncle, and deceased uncle's child	All to uncle.
Uncle by mother's side, and deceased uncle or aunt's child	All to uncle.
Nephew by brother, and nephew by half-sister	Equally <i>per capita</i> .*
Nephew by deceased brother, and nephews and nieces by deceased sister	Each in equal shares <i>per capita</i> , and not <i>per stirpes</i> .
Brother and grandfather	Whole to brother.
Brother's grandson, and brother or sister's daughter	All to brother or sister's daughter.
Brother and two aunts	All to brother.
☛ Brother, and wife	Half to brother, half to wife.
☛ Wife, mother, and children of a deceased brother (or sister)	{ Half to wife, a fourth to mother, and a fourth <i>per stirpes</i> to deceased brother's or sister's children.
☛ Wife, brother, or sister, and children of a deceased brother or sister	{ Half to wife, one-fourth to brother or sister, one-fourth to deceased brother's or sister's children <i>per stirpes</i> .
Brother or sister, and children of a deceased brother or sister	{ Half to brother or sister, half to children of deceased brother or sister <i>per stirpes</i> .
Grandfather, no nearer relation	All to grandfather.

* That is, taking individually, and not by representation. Thus, if A die, leaving three brothers or sisters, they each take an equal part of his effects in his or her own right. But if either of them die, leaving children, his children would take his share *per stirpes*, that is *through him*, and not in their own rights.

By the Act 19 & 20 Vict., cap. 94, all special local customs relating to the estates of intestates are abolished so far as they affect personal property.

☛ See Intestates' Estates Act, 1890, on previous page.

RULES OF DIVISION, ACCORDING TO THE LAW OF SCOTLAND,
OF THE MOVABLE ESTATE OF A PERSON WHO
HAS DIED INTESTATE.

If a person die, leaving

*His movable estate is divided in the
following proportions:—*

Wife	{ Half to wife, other half to deceased's next-of-kin.
Wife and child, or children	{ One-third to wife, remaining two-thirds to child, or among children equally.
Wife and children, and issue of predeceasing children	{ One-third to wife, one-third to children equally, and the remaining third between the children and the issue of the predeceasing children—the children taking <i>per capita</i> , the latter <i>per stirpes</i> .*
Wife and grandchildren.....	{ Half to wife, and half to grandchildren equally among them.
Wife, and his children by former marriages	{ One-third to wife, two-thirds to children equally.
Wife, and her children by last and prior marriages	{ One-third to wife, remaining two-thirds to deceased's children.
Children	Whole to children.
Children, and issue of predeceasing children ..	{ Half to children, remaining half between children <i>per capita</i> , and issue <i>per stirpes</i> .
Grandchildren	Equally to all.
Children by two or more marriages	Equally to all.
Father	Whole to father.
Mother	{ One-third to mother, other two-thirds to next-of-kin.
Father and mother	Whole to father.
Father and mother, and brothers and sisters ..	{ Half to father, half to brothers and sisters equally.
Mother, and brothers and sisters	{ One-third to mother, remaining two-thirds to brothers and sisters.
Father, mother, brothers, or sisters, and issue of deceased brothers or sisters	{ Half to father, half to brothers and sisters <i>per capita</i> , and issue <i>per stirpes</i> .
Mother, brothers, or sisters, and issue of deceased brothers or sisters	{ One-third to mother, remaining two-thirds as in last example.
Father and mother, and their grandchildren....	{ Half to father, other half to grandchildren equally.
Mother, and her grandchildren	{ One-third to mother, other two-thirds to grandchildren equally.
Father, mother, children, and grandchildren of deceased brothers or sisters	{ Half to father, other half between children <i>per capita</i> , and grandchildren <i>per stirpes</i> .
Mother, children, and grandchildren of deceased brothers or sisters	{ One-third to mother, other two-thirds among children <i>per capita</i> , and grandchildren <i>per stirpes</i> .
Brothers or sisters	Equally among them.
Brothers or sisters, and nephews or nieces	{ Brothers or sisters <i>per capita</i> , nephews or nieces <i>per stirpes</i> .
Nephews and nieces	Equally.
Grandnephews or nieces	Equally.

RULES OF DIVISION, ACCORDING TO THE LAW OF SCOTLAND,
OF THE MOVABLE ESTATE OF A PERSON WHO
HAS DIED INTESTATE.—CON.

If a person die, leaving

*His movable estate is divided in the
following proportions:—*

Brothers or sisters of full blood, and brothers or sisters of half-blood	Whole to brothers and sisters of full blood.
Brothers or sisters consanguinean (that is, by same father but not same mother), and brothers or sisters uterine (that is, by same mother but not by same father)	Whole to brothers and sisters consanguinean.
Brothers or sisters consanguinean, and uncles or aunts	Whole to brothers and sisters.
Brothers and sisters uterine, and uncles or aunts	Half to brothers and sisters, other half to uncles and aunts.
Father, mother, and uncles and aunts	Whole to father.
Father, and cousins of full blood	Whole to father.
Mother, and uncles or aunts	One-third to mother, two-thirds to uncles and aunts.
Mother, and cousins of full blood	One-third to mother, two-thirds to cousins equally.
Grandfather, and uncles and aunts	Whole to uncles and aunts.
Grandfather, grandmother, and mother	One-third to mother, two-thirds to grandfather.

Where a wife dies, survived by

*Her movable estate is divided in the
following proportions:—*

Husband	Half to husband, other half to next-of-kin.
Husband and children	One-third to husband, rest to children.
Children only	Whole to children.
Children, and issue of deceased children	Half to children, other half among children <i>per capita</i> , and issue <i>per stirpes</i> .
Children by two or more marriages	Equally to all.

Illegitimate children do not succeed to their father and mother, when the latter leave no will in their favour. When an illegitimate child dies without a will, and leaves neither wife nor children, his estate falls to the Crown.

* *Per capita*, i.e., by the head; *per stirpes* (by descent), i.e., through their parent and not in their own right. Where property divides *per capita*, it is divided into as many shares as there are children; where *per stirpes*, the share which would have fallen to the predeceasing parent if alive is divided equally among his children.

EXPECTATION OF LIFE.

EXPECTATION OF LIFE TABLES were constructed by the late Dr. Farr, of the General Register Office, and were calculated on the death-rates of 1838-54; but since that time very important changes have occurred in the death-rates at different ages; and consequently new tables have been constructed by Dr. W. Ogle, who succeeded Dr. Farr, on the basis of the death-rates of 1871-80. The following table gives the results both of the older and the later calculations; the first two columns in the male and female parts, respectively, giving the survivors at each year of life out of a million born of the corresponding sex, by the older and the newer calculation; and the two other columns giving similarly the expectation of life at each year.

AGE.	MALES.				FEMALES.				AGE.
	OF 1,000,000 BORN, THE NUMBER SURVIVING AT THE END OF EACH YEAR OF LIFE.		MEAN AFTER-LIFETIME (EXPECTATION OF LIFE).		OF 1,000,000 BORN, THE NUMBER SURVIVING AT THE END OF EACH YEAR OF LIFE.		MEAN AFTER-LIFETIME (EXPECTATION OF LIFE).		
	1833-54.	1871-80.	183-54.	1871-80.	1838-54.	1871-80.	1838-54.	1871-80.	
Col'mn	1	2	3	4	5	6	7	8	Col'mn
0	1,000,000	1,000,000	39.91	41.35	1,000,000	1,000,000	41.85	44.62	0
1	836,405	841,417	46.65	48.05	865,288	871,266	47.31	50.14	1
2	782,626	790,201	48.83	50.14	811,711	820,480	49.40	52.22	2
3	754,849	763,737	49.61	50.86	782,990	793,359	50.20	52.99	3
4	736,845	746,587	49.81	51.01	764,060	775,427	50.43	53.20	4
5	723,716	734,068	49.71	50.87	750,550	762,622	50.33	53.08	5
6	713,881	726,815	49.39	50.38	740,584	755,713	50.00	52.56	6
7	706,156	721,103	48.92	49.77	732,771	750,276	49.53	51.94	7
8	699,688	716,309	48.37	49.10	726,116	745,631	48.98	51.26	8
9	694,346	712,337	47.74	48.37	720,537	741,727	48.35	50.53	9
10	689,857	708,990	47.05	47.60	715,769	738,382	47.67	49.76	10
11	685,982	706,146	46.31	46.79	711,581	735,405	46.95	48.96	11
12	682,512	703,595	45.54	45.96	707,770	732,697	46.20	48.13	12
13	679,256	701,200	44.76	45.11	704,155	730,122	45.44	47.30	13
14	676,057	698,840	43.97	44.26	700,581	727,571	44.66	46.47	14
15	672,776	696,419	43.18	43.41	696,917	724,956	43.90	45.63	15
16	669,296	693,695	42.40	42.58	693,050	722,084	43.14	44.81	16
17	665,529	690,746	41.64	41.76	688,894	718,993	42.40	44.00	17
18	661,402	687,507	40.90	40.96	684,378	715,622	41.67	43.21	18
19	656,868	683,941	40.17	40.17	679,463	711,946	40.97	42.43	19
20	651,903	680,033	39.48	39.40	674,119	707,949	40.29	41.66	20
21	646,502	675,769	38.80	38.64	668,345	703,616	39.63	40.92	21
22	641,028	671,344	38.13	37.89	662,474	699,141	38.98	40.18	22
23	635,486	666,754	37.46	37.15	656,509	694,521	38.33	39.44	23
24	629,882	661,997	36.79	36.41	650,463	689,759	37.68	38.71	24
25	624,221	657,077	36.12	35.68	644,342	684,858	37.04	37.98	25
26	618,503	651,993	35.44	34.96	638,148	679,822	36.39	37.26	26
27	612,731	646,757	34.77	34.24	631,891	674,661	35.75	36.54	27
28	606,906	641,333	34.10	33.52	625,575	669,372	35.10	35.83	28
29	601,026	635,778	33.43	32.81	619,201	663,959	34.46	35.11	29
30	595,089	630,038	32.76	32.10	612,774	658,418	33.81	34.41	30
31	589,094	624,124	32.09	31.40	606,296	652,747	33.17	33.70	31
32	583,036	618,056	31.42	30.71	599,769	646,957	32.53	33.00	32
33	576,912	611,827	30.74	30.01	593,196	641,045	31.88	32.30	33
34	570,716	605,430	30.07	29.33	586,575	635,003	31.23	31.60	34
35	564,441	598,860	29.40	28.64	579,908	628,842	30.59	30.90	35
36	558,083	592,107	28.73	27.96	573,192	622,554	29.94	30.21	36
37	551,634	585,167	28.06	27.29	566,431	616,144	29.29	29.52	37
38	545,084	578,019	27.39	26.62	559,619	609,599	28.64	28.83	38
39	538,428	570,656	26.72	25.96	552,758	602,924	27.99	28.15	39
40	531,657	563,077	26.06	25.30	545,844	596,113	27.34	27.46	40
41	524,761	555,254	25.39	24.65	538,876	589,167	26.69	26.78	41
42	517,734	547,288	24.73	24.00	531,849	582,104	26.03	26.10	42
43	510,567	539,161	24.07	23.35	524,765	574,919	25.38	25.42	43
44	503,247	530,858	23.41	22.71	517,617	567,612	24.72	24.74	44

EXPECTATION OF LIFE.

AGE.	MALES.				FEMALES.				AGE.
	OF 1,000,000 BORN, THE NUMBER SURVIVING AT THE END OF EACH YEAR OF LIFE.		MEAN AFTER-LIFETIME (EXPECTATION OF LIFE).		OF 1,000,000 BORN, THE NUMBER SURVIVING AT THE END OF EACH YEAR OF LIFE.		MEAN AFTER-LIFETIME (EXPECTATION OF LIFE).		
	1838-54.	1871-80.	1838-54.	1871-80.	1838-54.	1871-30.	1838-54.	1871-80.	
Col'mn	1	2	3	4	5	6	7	8	Col'mn
45	495,770	522,374	22.76	22.07	510,403	560,174	24.06	24.06	45
46	488,126	513,702	22.11	21.44	503,122	552,602	23.40	23.38	46
47	480,308	504,836	21.46	20.80	495,768	544,892	22.74	22.71	47
48	472,306	495,761	20.82	20.18	488,339	537,043	22.08	22.03	48
49	464,114	486,479	20.17	19.55	480,833	529,048	21.42	21.36	49
50	455,727	476,980	19.54	18.93	473,245	520,901	20.75	20.68	50
51	447,139	467,254	18.90	18.31	465,572	512,607	20.09	20.01	51
52	438,099	457,022	18.28	17.71	457,814	504,188	19.42	19.34	52
53	428,801	446,510	17.67	17.12	449,966	495,645	18.75	18.66	53
54	419,256	435,729	17.06	16.53	442,027	486,973	18.08	17.98	54
55	409,460	424,677	16.45	15.95	433,331	477,440	17.43	17.33	55
56	399,408	413,351	15.86	15.37	424,239	467,443	16.79	16.69	56
57	389,088	401,740	15.26	14.80	414,761	456,992	16.17	16.06	57
58	378,481	389,827	14.63	14.24	404,895	446,079	15.55	15.45	58
59	367,570	377,591	14.10	13.68	394,636	434,695	14.94	14.84	59
60	356,330	365,011	13.53	13.14	383,974	422,835	14.34	14.24	60
61	344,744	352,071	12.96	12.60	372,895	410,477	13.75	13.65	61
62	332,789	338,820	12.41	12.07	361,387	397,644	13.17	13.08	62
63	320,451	325,256	11.87	11.56	349,436	384,319	12.60	12.51	63
64	307,720	311,368	11.34	11.05	337,031	370,495	12.05	11.96	64
65	294,588	297,156	10.82	10.55	324,165	356,165	11.51	11.42	65
66	281,064	282,638	10.32	10.07	310,833	341,326	10.98	10.90	66
67	267,160	267,229	9.83	9.60	297,048	325,988	10.47	10.39	67
68	252,901	252,763	9.36	9.14	282,819	310,170	9.97	9.89	68
69	238,328	237,487	8.90	8.70	268,177	293,899	9.48	9.41	69
70	223,490	222,056	8.45	8.27	253,161	277,225	9.02	8.95	70
71	208,453	206,539	8.03	7.85	237,822	260,207	8.57	8.50	71
72	193,297	190,971	7.62	7.45	222,230	242,934	8.13	8.07	72
73	178,114	175,449	7.22	7.07	206,464	225,497	7.71	7.65	73
74	163,003	160,074	6.85	6.70	190,620	208,003	7.31	7.25	74
75	148,076	144,960	6.49	6.34	174,800	190,566	6.93	6.87	75
76	133,453	130,227	6.15	6.00	159,126	173,316	6.56	6.51	76
77	119,251	115,926	5.82	5.68	143,722	156,392	6.21	6.16	77
78	105,592	102,359	5.51	5.37	128,711	139,927	5.88	5.82	78
79	92,587	89,449	5.21	5.07	114,229	124,065	5.56	5.50	79
80	80,343	77,354	4.93	4.79	100,394	108,935	5.26	5.20	80
81	68,946	66,153	4.66	4.51	87,323	94,662	4.98	4.90	81
82	58,471	55,842	4.41	4.26	75,119	81,305	4.71	4.63	82
83	48,970	46,489	4.17	4.01	63,862	68,966	4.45	4.37	83
84	40,471	38,132	3.95	3.78	53,615	57,723	4.21	4.12	84
85	32,979	30,785	3.73	3.56	44,419	47,631	3.98	3.88	85
86	26,476	24,436	3.53	3.36	36,284	38,710	3.76	3.66	86
87	20,926	19,054	3.31	3.17	29,202	30,958	3.56	3.46	87
88	16,268	14,576	3.16	2.99	23,135	24,338	3.36	3.26	88
89	12,428	10,926	3.00	2.82	18,027	18,788	3.18	3.08	89
90	9,321	8,015	2.84	2.66	13,802	14,225	3.01	2.90	90
91	6,859	5,748	2.69	2.51	10,376	10,553	2.85	2.74	91
92	4,946	4,025	2.55	2.37	7,650	7,658	2.70	2.58	92
93	3,492	2,749	2.41	2.24	5,526	5,429	2.55	2.44	93
94	2,411	1,828	2.29	2.12	3,908	3,756	2.42	2.30	94
95	1,628	1,183	2.17	2.01	2,704	2,533	2.29	2.17	95
96	1,071	742	2.06	1.90	1,827	1,661	2.17	2.11	96
97	688	452	1.95	1.81	1,204	1,057	2.06	2.03	97
98	430	266	1.85	1.72	774	653	1.96	1.83	98
99	262	151	1.76	1.65	483	389	1.86	1.73	99
100	154	82	1.68	1.61	295	225	1.76	1.62	100

THE QUEEN AND ROYAL FAMILY.

THE QUEEN.—VICTORIA, of the United Kingdom of Great Britain and Ireland, &c., Queen, Defender of the Faith. Her Majesty was born at Kensington Palace, May 24, 1819; succeeded to the throne, June 20, 1837, on the death of her uncle, King William IV.; was crowned June 28, 1838; and married, February 10, 1840, to his Royal Highness Prince Albert. Her Majesty is the only child of his late Royal Highness Edward, Duke of Kent, son of King George III. The children of Her Majesty are :—

1. Her Royal Highness Victoria Adelaide Mary Louisa, PRINCESS ROYAL OF ENGLAND AND PRUSSIA, born November 21, 1840, and married to his Royal Highness Frederick Wilhelm, the Crown Prince of Germany, January 25, 1858, afterwards the Emperor of Germany, died June 15, 1888, and has issue, living, two sons and four daughters.

2. His Royal Highness Albert Edward, PRINCE OF WALES, born November 9, 1841, married, March 10, 1863, Alexandra of Denmark (Princess of Wales), born December 1, 1844, and has issue, Prince Albert Victor, born January 8, 1864, died January 14, 1892; George Frederick Ernest Albert, born June 3, 1865; Louisa Victoria Alexandra Dagmar, born February 20, 1867, married, July 27, 1889, Alexander William George, Duke of Fife; Victoria Alexandra Olga Mary, born July 6, 1868; Maud Charlotte Mary Victoria, born November 26, 1869; and Alexander John Charles Albert, born April 6, 1871, died April 7, 1871.

3. Her Royal Highness Alice Maud Mary, born April 25, 1843; died December 14, 1878; married his Royal Highness Prince Frederick Louis of Hesse, July 1, 1862; had issue five daughters and two sons; the second son died by an accident, May, 1873; the youngest daughter died November 15, 1878.

4. His Royal Highness Alfred Ernest Albert, Duke of Edinburgh, born August 6, 1844; married the Grand Duchess Marie of Russia, January 23, 1874; and has had issue a son, born October 15, 1874, and four daughters, born October 29, 1875, November 25, 1876, September 1, 1878, and March, 1884.

5. Her Royal Highness Helena Augusta Victoria, born May 25, 1846; married to his Royal Highness Prince Frederick Christian Charles Augustus of Schleswig-Holstein Sonderburg-Augustenburg, July 5, 1866; and has issue living one son and two daughters.

6. Her Royal Highness Louise Caroline Alberta, born March 18, 1848; married to the Marquis of Lorne, eldest son of the Duke of Argyll, March 21, 1871.

7. His Royal Highness Arthur William Patrick Albert, Duke of Connaught, born May 1, 1850; married Princess Louise Margaret of Prussia, March 13, 1879; issue, a daughter, born January 15, 1882; a son, born January 13, 1883; and a daughter, born March 17, 1886.

8. His Royal Highness Leopold George Duncan Albert, Duke of Albany, born April 7, 1853; married, April 27, 1882, Princess Helen of Waldeck; died March 28, 1884; issue, a daughter, born February 26, 1883, and a son, born July 19, 1884.

9. Her Royal Highness Beatrice Mary Victoria Feodora, born April 14, 1857; married, July 23, 1885, to Prince Henry of Battenberg; issue, four sons and a daughter.

PARLIAMENTS OF THE UNITED KINGDOM.

Assembled.			Dissolved.			Duration.			Assembled.			Dissolved.			Duration.		
GEORGE III.						Yrs. m. d.			WILLIAM IV.						Yrs. m. d.		
1	Sept. 27, 1796*	June 29, 1802	5	9	2	11	Jan. 29, 1833	Dec. 30, 1834	1	11	1	12	Feb. 19, 1835	July 17, 1837	2	4	28
2	Oct. 29, 1802	Oct. 25, 1806	3	11	27	VICTORIA.			13	Nov. 15, 1837	June 23, 1841	3	7	8			
3	Dec. 15, 1806	April 23, 1807	0	4	14	14	Aug. 19, 1841	July 23, 1847	5	11	4	15	Nov. 18, 1847	July 1, 1852	4	7	13
4	June 22, 1807	Sept. 29, 1812	5	3	7	16	Nov. 4, 1852	Mar. 21, 1857	4	4	17	17	April 30, 1857	April 23, 1859	1	11	23
5	Nov. 24, 1812	June 10, 1818	5	6	16	18	May 31, 1859	July 6, 1865	6	1	6	19	Feb. 1, 1866	Nov. 11, 1868	2	9	10
6	Jan. 14, 1819	Feb. 29, 1820	1	1	15	20	Dec. 10, 1863	Jan. 26, 1874	5	1	16	21	Mar. 5, 1874	Mar. 25, 1880	6	0	20
GEORGE IV.																	
7	April 23, 1820	June 2, 1826	6	1	9	22	April 29, 1880	Nov. 18, 1885	5	6	20	23	Jan. 12, 1886	June 25, 1886	0	5	5
8	Nov. 14, 1826	July 24, 1830	3	8	10	24	Aug. 5, 1886	June 28, 1892	5	10	24	25	Aug. 4, 1892				
WILLIAM IV.																	
9	Oct. 26, 1830	April 22, 1831	0	5	27												
10	June 14, 1831	Dec. 3, 1832	1	5	9												

*Parliament first met after the Union with Ireland, Jan. 22, 1801.

LIST OF ADMINISTRATIONS IN THE PRESENT CENTURY.

Date.	Prime Minister.	Duration.	Chancellor.	Exchequer.	Home Secretary.	Foreign Sec.
		Yrs. Days.				
Dec. 23, 1788	William Pitt	17 84	{Thurlow... {Loughboro'	William Pitt..	Portland	Grenville.
Mar. 17, 1801	Hy. Addington..	3 59	Eldon.....	H. Addington.	Portland, Pelham C. Yorke.	Hawkesbury.
May 15, 1804	William Pitt	1 272	Eldon.....	William Pitt..	Hawkesbury ..	{Harrowby. {Mulgrave.
Feb. 11, 1806	Lord Grenville..	1 48	Erskine....	Lord H. Petty	Spencer	{Charles J. Fox. {Visct. Howica.
Mar. 31, 1807	Duke of Portland	2 246	Eldon.....	S. Perceval ..	Hawkesbury ..	G. Canning.
Dec. 2, 1809	Spencer Perceval	2 190	Eldon.....	S. Perceval ..	R. Ryder	{Bathurst. {Wellesley.
June 9, 1812	Earl of Liverpool	14 319	Eldon.....	{N. Vansittart. {F. J. Robinson	Sidmouth	Castlereagh. G. Canning.
Apr. 24, 1827	George Canning.	0 134	Lyndhurst .	G. Canning ..	{Sturges Bourne. {Lansdowne	Dudley.
Sept. 5, 1827	Visct. Goderich..	0 142	Lyndhurst .	J. C. Herries..	Lansdowne	Dudley.
Jan. 25, 1828	D. of Wellington.	2 301	Lyndhurst .	H. Goulburn..	Robert Peel....	{Dudlev. {Aberdeen.
Nov. 22, 1830	Earl Grey	3 238	Brougham .	Althorp	Melburne	Palmerston.
July 18, 1834	Visct. Melbourne	0 161	Brougham .	Althorp	Duncannon....	Palmerston.
Dec. 26, 1834	Sir Robert Peel..	0 113	Lyndhurst .	Sir R. Peel ..	H. Goulburn ..	Wellington.
Apr. 18, 1835	Visct. Melbourne	6 141	{In Comm. {Cottenham ..	F. S. Rice	Lord J. Russell..	Palmerston.
Sept. 6, 1841	Sir Robert Peel..	4 303	Lyndhurst .	H. Goulburn..	Sir J. Graham..	Aberdeen.
July 6, 1846	Ld. John Russell	5 236	{Cottenham .. {Tunbridge ..	Sir C. Wood..	Sir George Grey	{Palmerston. {Granville.
Feb. 27, 1852	Earl of Derby ..	0 305	St. Leonards	B. Disraeli ..	S. H. Walpole ..	Malmesbury.
Dec. 28, 1852	Earl of Aberdeen	2 44	Cranworth .	W. Gladstone.	Palmerston	{Lord J. Russell. {Clarendon.
Feb. 10, 1855	Lord Palmerston	3 15	Cranworth .	{W. Gladstone.. {Sir G. C. Lewis	Sir George Grey	Clarendon.
Feb. 25, 1858	Earl of Derby ..	1 113	Chelmsford.	B. Disraeli ..	S. H. Walpole ..	Malmesbury.
June 18, 1859	Lord Palmerston	6 141	{Cannibell .. {Westbury ..	W. Gladstone.	{Sir G. C. Lewis.. {Sir George Grey.	Russell.
Nov. 6, 1865	Earl Russell	0 242	Cranworth .	W. Gladstone.	Sir George Grey	Clarendon.
July 6, 1866	Earl of Derby ..	1 236	Chelmsford.	B. Disraeli ..	{S. H. Walpole .. {Gathorne Hardy	Stanley.
Feb. 27, 1868	Benjamin Disraeli	0 285	Cairns	G. W. Hunt ..	G. Hardy	Stanley.
Dec. 9, 1868	W. E. Gladstone.	5 74	{Hatherley.. {Selborne ..	{Robert Lowe.. {W. Gladstone..	{H. A. Bruce {Robert Lowe....	{Clarendon. {Granville.
Feb. 21, 1874	Benjamin Disraeli Earl Beaconsfield.	6 67	Cairns	S. Northcote..	R. A. Cross	{Derby. {Salisbury.
Apr. 28, 1880	W. E. Gladstone.	5 57	Selborne ..	{W. Gladstone.. {H. C. E. Childers	Sir W. Harcourt	Granville.
June 24, 1885	Mrq. of Salisbury	0 227	Halsbury ..	Hicks-Beach .	R. A. Cross	Salisbury.
Feb. 7, 1886	W. E. Gladstone.	0 139	Herschel ..	W. Harcourt..	H. C. E. Childers	Rosebery.
July 24, 1886	Mrq. of Salisbury	6 17	Halsbury ..	{Ld. Churchill. {G. J. Goschen.	H. Matthews ..	{Ides-Heigh. {Salisbury.
Aug. 15, 1892	W. E. Gladstone.		Herschel ..	W. Harcourt..	H. H. Asquith..	Rosebery.

THE GLADSTONE MINISTRY, 1892.

Prime Minister, First Lord of the Treasury, and Lord Privy Seal.....	Rt. Hon. W. E. GLADSTONE.
Lord Chancellor	LORD HERSCHELL.
Secretary for India and Lord President of the Council	The EARL of KIMBERLEY.
Chancellor of the Exchequer	Rt. Hon. Sir WILLIAM HARCOURT.
Home Secretary	Rt. Hon. H. H. ASQUITH, Q.C.
Secretary for Foreign Affairs	The EARL of ROSEBERY.
Secretary for the Colonies.....	The MARQUIS of RIPON.
Secretary for War	Rt. Hon. H. CAMPBELL-BANNERMAN.
Secretary for Scotland	Sir GEORGE TREVELYAN.
First Lord of the Admiralty.....	EARL SPENCER.
Chief Secretary for Ireland	Rt. Hon. JOHN MORLEY.
Postmaster-General	Rt. Hon. ARNOLD MORLEY.
President of the Board of Trade	Rt. Hon. A. J. MUNDELLA.
Chancellor of the Duchy of Lancaster ..	Rt. Hon. JAMES BRYCE.
President of the Local Government Board.....	Rt. Hon. HENRY H. FOWLER.
Vice-President of the Council	Rt. Hon. ARTHUR H. D. ACLAND.
First Commissioner of Works	Rt. Hon. G. SHAW-LEFEVRE.
President of the Board of Agriculture....	Rt. Hon. HERBERT C. GARDNER.

The above form the Cabinet.

Lord Lieutenant of Ireland	LORD HOUGHTON.
Lord Chancellor of Ireland	SAMUEL WALKER, Q.C.
Junior Lords of the Treasury	{ WILLIAM A. MCARTHUR. R. K. CAUSTON. THOMAS E. ELLIS.
Financial Secretary to the Treasury	Rt. Hon. JOHN T. HIBBERT.
Patronage Secretary to the Treasury	Rt. Hon. E. MARJORIBANKS.
Under Secretary for the Home Department	Rt. Hon. HERBERT GLADSTONE.
Under Secretary for Foreign Affairs	Sir EDWARD GREY.
Under Secretary for the Colonies	SIDNEY C. BUXTON.
Under Secretary for India	G. W. E. RUSSELL.
Parliamentary Secretary of the Board of Trade	{ THOMAS BURT.
Parliamentary Secretary of the Local Government Board	{ Sir WALTER FOSTER.

THE GLADSTONE MINISTRY, 1892—*Continued.*

Attorney-General.....	Sir CHARLES RUSSELL, Q.C.
Solicitor-General	J. C. RIGBY, Q.C.
Lord Advocate	J. B. BALFOUR, Q.C.
Solicitor-General for Scotland	A. ASHER, Q.C.
Attorney-General for Ireland	The MACDERMOT, Q.C.
Solicitor-General for Ireland	SERJEANT HEMPHILL.
Vice-Chamberlain of the Household	The Hon. C. R. SPENCER.
Comptroller of the Household	The Hon. G. LEVESON-GOWER.
Secretary to the Admiralty	Sir U. KAY-SHUTTLEWORTH.
Under Secretary for the War Office	LORD SANDHURST.
Financial Secretary to the War Office ..	WILLIAM WOODALL.
Lord Chamberlain	LORD CARRINGTON.

PRIME MINISTERS SINCE 1834.

Sir Robert Peel	December 15, 1834	Earl of Derby.....	July 8, 1866
Viscount Melbourne	April 18, 1835	Mr. Disraeli..	March to December, 1868
Sir Robert Peel	August 31, 1841	Mr. Gladstone	December 9, 1868
Lord John Russell.....	July 6, 1846	Earl Beaconsfield ..	February 21, 1874
Earl of Derby	February 27, 1852	Mr. Gladstone	April 29, 1880
Earl of Aberdeen ..	December 28, 1852	and Ch. of Ex. to April, 1883.	
Viscount Palmerston.	February 26, 1855	Marquis of Salisbury	June 24, 1885
Earl of Derby	February 26, 1858	Mr. Gladstone	February 2, 1886
Viscount Palmerston	June 18, 1859	Marquis of Salisbury ..	August 3, 1886
Earl Russell	October 28, 1865	Mr. Gladstone	August 15, 1892

Nineteen changes of Governments have taken place since the beginning of 1834, but in that time only nine men have been Premiers, and of these Mr. Gladstone and the Marquis of Salisbury are the sole survivors. Mr. Gladstone has been Premier longer than any other statesman since the Earl of Liverpool, who held office nearly fifteen years in succession.

In 1885 the number of members of the Lower House was finally fixed at 670, as against 658 in previous years; England returning 465, Wales 30, Scotland 72, and Ireland 103 members. The previous distribution had been—England 469, Wales 30, Scotland 60, and Ireland 103 seats. There are now 377 county members, as against 283; 284 borough members, as against 360; and 9 University members, as against 9.

THE
HOUSE OF COMMONS AS ELECTED JULY, 1892.

WITH CORRECTIONS TO DECEMBER.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Peasants' Party	
BEDFORD (3).								
<i>County Divisions (2).</i>								
Biggleswade, or N.....	G. W. E. Russell	1	..	..	..	..	..	64,457
Luton, or S.	H. Whitebread	1	..	..	..	..	..	68,249
		2	..	..	..	..	..	132,706
<i>Borough (1).</i>								
Bedford	S. Whitbread	1	..	..	..	..	..	28,023
		3	..	..	..	..	..	160,729
BERKS. (5).								
<i>County Divisions (3).</i>								
Abingdon, or N.....	P. Wroughton.....	..	..	1	..	..	..	49,077
Newbury, or S.	W. G. Mount .....	..	..	1	..	..	..	55,846
Wokingham, or E....	Sir George Russell.....	..	..	1	..	..	..	59,104
		..	..	3	..	..	..	164,027
<i>Boroughs (2).</i>								
Reading	G. W. Palmer.....	1	..	..	..	..	..	55,752
Windsor (New)	F. T. Barry .....	..	..	1	..	..	..	12,327
		1	..	4	..	..	..	232,106
BUCKS. (3).								
<i>County Divisions (3).</i>								
Aylesbury, or M.	Baron F. de Rothschild ..	..	..	..	1	..	..	58,510
Buckingham, or N. ..	H. S. Leon	1	..	..	..	..	..	57,389
Wycombe, or S.....	Viscount Curzon .....	..	..	1	..	..	..	66,792
		1	..	1	1	..	..	182,691
CAMBRIDGE (4).								
<i>County Divisions (3).</i>								
Chesterton, or W.....	Hugh E. Hoare	1	..	..	..	..	..	46,041
Newmarket, or E.....	G. Newnes	1	..	..	..	..	..	48,878
Wisbeach, or N.....	Hon. A. G. Brand	1	..	..	..	..	..	49,556
		3	..	..	..	..	..	144,475
<i>Borough (1).</i>								
Cambridge	R. U. P. Fitzgerald .....	..	..	1	..	..	..	44,387
		3	..	1	..	..	..	188,862

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal Unionist	Nationalist	Parliamentary	
CHESTER (13).								
<i>County Divisions (8).</i>								
Altrincham.....	C. R. Disraeli .....	..	..	1	..	..	..	63,390
Crewe	W. S. B. Mc.Laren	1	..	..	..	..	..	64,434
Eddisbury	H. J. Tollemache .....	..	..	1	..	..	..	55,249
Hyde	J. W. Sidebotham .....	..	..	1	..	..	..	57,468
Knutsford	Hon. A. de T. Egerton.....	..	..	1	..	..	..	55,073
Macclesfield	Bromley Davenport .....	..	..	1	..	..	..	53,147
Northwich	J. T. Brunner	1	..	..	..	..	..	69,893
Wirrall	Colonel Cotton-Jodrell .....	..	..	1	..	..	..	73,725
		2	..	6	..	..	..	492,379
<i>Boroughs (5).</i>								
Birkenhead.....	Viscount Bury .....	..	..	1	..	..	..	99,249
Chester	R. A. Yerburch .....	..	..	1	..	..	..	42,295
Stalybridge	T. H. Sidebottom .....	..	..	1	..	..	..	44,135
Stockport (2)	L. J. Jennings.....	..	..	1	..	..	..	70,253
	J. Leigh	1	..	..	..	..	..
		3	..	10	..	..	..	748,311
CORNWALL (7).								
<i>County Divisions (6).</i>								
Bodmin, or S.E.	Rt. Hon. L. H. Courtney..	..	..	..	1	..	..	52,386
Camborne, or N.W. ...	C. A. V. Conybeare	1	..	..	..	..	..	54,192
Launceston, or N.E..	T. Owen	1	..	..	..	..	..	48,036
St. Austell, or M.	W. A. Mc.Arthur	1	..	..	..	..	..	49,517
St. Ives, or W.	T. B. Bolitho .....	..	..	..	1	..	..	50,160
Truro	J. C. Williams.....	..	..	..	1	..	..	50,715
		3	..	..	3	..	..	305,056
<i>Borough (1).</i>								
Penryn and Falmouth	W. G. C. Bentinck.....	..	..	1	..	..	..	17,533
		3	..	1	3	..	..	322,589
CUMBERLAND (6).								
<i>County Divisions (4).</i>								
Cockermouth	Sir Wilfrid Lawson	1	..	..	..	..	..	63,592
Egremont, or W.	D. Ainsworth	1	..	..	..	..	..	53,629
Eskdale, or N.	R. A. Allison	1	..	..	..	..	..	45,300
Penrith, or M.	J. W. Lowther .....	..	..	1	..	..	..	45,636
		3	..	1	..	..	..	208,157
<i>Boroughs (2).</i>								
Carlisle	W. C. Gully, Q.C.	1	..	..	..	..	..	39,170
Whitehaven	T. Shepherd Little.....	1	..	..	..	..	..	19,217
		5	..	1	..	..	..	266,550

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliam'tary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Protege	
DERBY (9).								
County Divisions (7).								
Chesterfield	T. Bayley.....	1	..	..	..	..	..	61,294
High Peak	Captain Sidebottom .....	..	..	1	..	..	..	60,740
Ilkeston	Sir W. B. Foster	1	..	..	..	..	..	69,192
Mid	J. A. Jacoby	1	..	..	..	..	..	59,716
North-Eastern	T. D. Bolton	1	..	..	..	..	..	61,995
Southern	H. E. Broad	1	..	..	..	..	..	63,816
Western	V. C. Cavendish .....	..	..	..	1	..	..	56,987
		5	..	1	1	..	..	433,740
Boroughs (2).								
Derby (2)	Rt. Hon. Sir W. Harcourt.	1	..	..	..	..	..	94,146
	T. Roe	1	..	..	..	..	..
		7	..	1	1	..	..	527,886
DEVON (13).								
County Divisions (8).								
Ashburton, or M.	C. Seal Hayne	1	..	..	..	..	..	53,005
Barnstaple, or N.W.	A. Billson.....	1	..	..	..	..	..	61,349
Honiton, or E.	Sir J. Kennaway .....	..	..	1	..	..	..	52,025
South Molton, or N.	G. Lambert.....	1	..	..	..	..	..	46,718
Tavistock, or W.	H. C. F. Luttrell	1	..	..	..	..	..	50,715
Tiverton, or N.E.	Sir W. Walrond .....	..	..	1	..	..	..	52,762
Torquay	R. Mallock .....	..	..	1	..	..	..	57,463
Totnes, or S.	F. B. Mildmay .....	..	..	..	1	..	..	49,615
		4	..	3	1	..	..	423,652
Boroughs (5).								
Devonport (2)	Hudson Kearley.....	1	..	..	..	..	..	70,238
	E. J. C. Morton	1	..	..	..	..	..
Exeter	Hon. Sir H. S. Northcote..	..	..	1	..	..	..	50,570
Plymouth (2)	Sir E. Clarke .....	..	..	1	..	..	..	87,307
	Sir W. Pearce.....	..	..	1	..	..	..
		6	..	6	1	..	..	631,767
DORSET (4).								
County Divisions (4).								
Eastern	Hon. H. Sturt.....	..	..	1	..	..	..	57,202
Northern.....	J. K. Wingfield Digby ....	..	..	1	..	..	..	45,740
Southern	W. E. Brymer .....	..	..	1	..	..	..	49,897
Western	H. Farquharson.....	..	..	1	..	..	..	41,648
		..	..	4	..	..	..	194,487

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paranilit	
DURHAM (16).								
<i>County Divisions (8).</i>								
Barnard Castle	Sir J. W. Peace	1	..	..	..	..	..	59,459
Bishop Auckland	J. M. Paulton	1	..	..	..	..	..	61,833
Chester-le-Street	J. Joicey	1	..	..	..	..	..	70,206
Houghton-le-Spring ..	Captain H. T. Fenwick ..	1	..	..	..	..	..	69,235
Jarrow	Sir C. M. Palmer	1	..	..	..	..	..	80,532
Mid	J. Wilson .....	..	1	..	..	..	..	67,635
North-Western	Atherley Jones	1	..	..	..	..	..	65,987
South-Eastern	J. Richardson	1	..	..	..	..	..	63,830
		7	1	..	..	..	..	538,717
<i>Boroughs (8).</i>								
Darlington	Theodore Fry	1	..	..	..	..	..	38,030
Durham	M. A. Fowler	1	..	..	..	..	..	15,287
Gateshead	Hon. W. H. James	1	..	..	..	..	..	85,712
Hartlepool	C. Furness	1	..	..	..	..	..	64,914
South Shields	J. C. Stevenson	1	..	..	..	..	..	78,431
Stockton	T. Wrightson .....	..	..	1	..	..	..	68,895
Sunderland (2)	S. Storey	1	..	..	..	..	..	142,097
	Colonel Gourley	1	..	..	..	..	..
		14	1	1	..	..	..	1,032,083
ESSEX (11).								
<i>County Divisions (8).</i>								
Chelmsford, or M.	T. Usborne .....	..	..	1	..	..	..	58,313
Epping, or W.	Colonel Lockwood .....	..	..	1	..	..	..	55,416
Harwich, or N.E.	J. Round .....	..	..	1	..	..	..	55,612
Maldon, or E.	Cyril Dodd, Q.C.	1	..	..	..	..	..	54,572
Romford, or S.	J. Theobald .....	..	..	1	..	..	..	103,543
Saffron Walden, or N.	H. C. Gardner	1	..	..	..	..	..	47,422
South-Eastern	Major Rasch .....	..	..	1	..	..	..	69,824
Walthamstow, or S.W.	E. W. Byrne, Q.C. ....	..	..	1	..	..	..	101,236
		2	..	6	..	..	..	545,938
<i>Boroughs (3).</i>								
Colchester	Captain Naylor-Leyland ..	..	..	1	..	..	..	34,559
West Ham, North	Archibald Grove	1	..	..	..	..	..	92,304
„ South	J. Keir Hardie .....	..	1	..	..	..	..	112,598
		3	1	7	..	..	..	785,399
GLOUCESTER (11).								
<i>County Divisions (5).</i>								
Cirencester, or E.	Colonel Chester Master ....	..	..	1	..	..	..	53,364
Forest of Dean	Rt. Hon. Sir C. Dilke	1	..	..	..	..	..	52,791
Stroud, or M.	D. B. Jones	1	..	..	..	..	..	56,488
Tewkesbury, or N.	Sir J. E. Dorington .....	..	..	1	..	..	..	50,325
Thornbury, or S.	C. E. H. A. Colston .....	..	..	1	..	..	..	63,587
		2	..	3	..	..	..	276,555

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paranllite	
GLOUCESTER.—CON.								
<i>Boroughs (6).</i>								
Bristol, East	Sir J. D. Weston	1	..	..	..	..	..	70,685
„ North	Charles Townsend	1	..	..	..	..	..	77,172
„ South	Sir Edward Hill.....	..	..	1	..	..	..	72,273
„ West	Sir M. Hicks-Beach .....	..	..	1	..	..	..	65,481
Cheltenham	J. T. Agg-Gardner .....	..	..	1	..	..	..	49,775
Gloucester	T. Robinson	1	..	..	..	..	..	39,444
		5	..	6	..	..	..	651,385
HANTS (12).								
<i>County Divisions (6).</i>								
Andover, or W.	W. W. B. Beach.....	..	..	1	..	..	..	51,225
Basingstoke, or N. ..	A. F. Jeffreys .....	..	..	1	..	..	..	70,497
Fareham, or S.	Lt.-Gen. Sir F. Fitzwygram	..	..	1	..	..	..	65,987
Isle of Wight	Sir R. Webster .....	..	..	1	..	..	..	78,718
New Forest	Hon. J. W. Ed. Montague.	..	..	1	..	..	..	51,300
Petersfield, or E.	W. Wickham .....	..	..	1	..	..	..	47,165
		..	..	6	..	..	..	364,892
<i>Boroughs (6).</i>								
Christchurch	Abel H. Smith .....	..	..	1	..	..	..	53,270
Portsmouth (2)	John Baker	1	..	..	..	..	..	159,255
	W. O. Clough	1	..	..	..	..	..
Southampton (2) ..	T. Chamberlayne .....	..	..	1	..	..	..	93,596
	F. H. Evans	1	..	..	..	..	..
Winchester	W. H. Myers .....	..	..	1	..	..	..	19,073
		3	..	9	..	..	..	690,086
HEREFORD (3).								
<i>County Divisions (2).</i>								
Leominster, or N.	J. Rankin .....	..	..	1	..	..	..	45,830
Ross, or S.	M. Biddulph .....	..	..	..	1	..	..	49,889
		..	..	1	1	..	..	95,719
<i>Borough (1).</i>								
Hereford	W. H. Grenfell	1	..	..	..	..	..	20,267
		1	..	1	1	..	..	115,986
HERTFORD (4).								
<i>County Divisions (4).</i>								
Hertford, or E.	A. Smith .....	..	..	1	..	..	..	54,571
Hitchin, or N.	G. B. Hudson .....	..	..	1	..	..	..	48,437
St. Albans, or M.	Vicary Gibbs .....	..	..	1	..	..	..	53,239
Watford, or W.	T. F. Halsey .....	..	..	1	..	..	..	63,878
		..	..	4	..	..	..	220,125

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paran'ltite	
HUNTINGDON (2).								
County Divisions (2).								
Huntingdon, or S.....	A. H. Smith-Barry .....	..	..	1	..	..	.	25,422
Ramsey, or N.	Hon. A. E. Fellowes .....	..	..	1	..	..	..	29,558
KENT (19).		..	..	2	..	..	..	54,980
County Divisions (8).								
Ashford, or S.....	L. Hardy .....	..	..	1	..	..	..	67,946
Dartford, or N.W.....	Rt. Hon. Sir W. Hart-Dyke .....	..	..	1	..	..	..	79,850
Faversham, or N.E....	H. T. Knatchbull-Hugessen .....	..	..	1	..	..	..	69,343
Isle of Thanet	Rt. Hon. J. Lowther.....	..	..	1	..	..	..	61,617
Medway, or M.	Major C. E. Warde .....	..	..	1	..	..	..	64,178
Sevenoaks, or W.	H. W. Forster.....	..	..	1	..	..	..	80,062
St. Augustine's, or E..	Rt. Hon. A. Akers-Douglas. ....	..	..	1	..	..	..	68,011
Tunbridge, or S.W. ..	A. Griffith-Boscawen.....	..	..	1	..	..	..	72,596
Boroughs (11).		..	..	8	..	..	..	563,603
Canterbury	J. Henniker-Heaton .....	..	..	1	..	..	..	22,607
Chatham.....	Colonel Lloyd .....	..	..	1	..	..	..	59,389
Deptford	C. J. Darling .....	..	..	1	..	..	..	101,326
Dover	G. Wyndham .....	..	..	1	..	..	..	33,313
Gravesend	D. Palmer .....	..	..	1	..	..	..	35,492
Greenwich	T. W. Boord .....	..	..	1	..	..	..	78,131
Hythe	Sir Edward Watkin .....	..	..	..	1	..	..	35,540
Lewisham	J. Penn.....	..	..	1	..	..	..	88,643
Maidstone	F. S. W. Cornwallis .....	..	..	1	..	..	..	32,145
Rochester	*H. D. Davies .....	..	..	1	..	..	..	26,170
Woolwich	Colonel Hughes .....	..	..	1	..	..	..	98,976
LANCASTER (57).		..	..	18	1	..	..	1,175,335
County Divisions (23).								
Northern Part (4).								
Blackpool	Sir M. W. Ridley .....	..	..	1	..	..	..	70,356
Chorley	General R. J. Fielden .....	..	..	1	..	..	..	67,854
Lancaster	J. Williamson.....	1	..	..	..	..	..	64,279
North Lonsdale.....	W. Smith.....	1	..	..	..	..	..	51,181
N.-Eastern Part (4).								
Accrington.....	J. F. Leese, Q.C.	1	..	..	..	..	..	75,712
Clitheroe	Sir U. Kay-Shuttleworth..	1	..	..	..	..	..	89,331
Darwen	C. P. Huntingdon	1	..	..	..	..	..	70,475
Rossendale	J. H. Maden	1	..	..	..	..	..	70,567
S.-Eastern Part (8).								
Eccles	H. J. Roby	1	..	..	..	..	..	78,133
Gorton	W. Mather	1	..	..	..	..	..	77,690
Heywood	T. Snape	1	..	..	..	..	..	56,794
Middleton	C. H. Hopwood, Q.C.	1	..	..	..	..	..	68,540
Prestwich	R. G. C. Mowbray .....	..	..	1	..	..	..	79,497
Radcliffe-c'm-Farnwth	R. Leake	1	..	..	..	..	..	72,940
Stretford	J. W. Maclure.....	..	..	1	..	..	..	67,004
Westhoughton	E. G. V. Stanley .....	..	..	1	..	..	..	83,063
	* Unseated on petition.							

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
LANCASTER.—CON.								
<i>S.-Western Part (7).</i>								
Bootle	Colonel Sandys .....	..	..	1	..	..	..	97,552
Ince	Samuel Woods .....	..	1	..	..	..	..	67,021
Leigh	C. Wright	1	..	..	..	..	..	65,155
Newton	T. W. Leigh .....	..	..	1	..	..	..	63,296
Ormskirk.....	Rt. Hon. A. B. Forwood ..	..	..	1	..	..	..	64,096
Southport	Hon. G. N. Curzon .....	..	..	1	..	..	..	76,581
Widnes	J. S. Gilleat.....	..	..	1	..	..	..	64,507
<i>Boroughs (34).</i>								
Ashton-under-Lyne ..	J. E. W. Addison, Q.C.....	12	1	10	..	..	..	1,641,624
Barrow-in-Furness ..	C. W. Cayzer .....	..	..	1	..	..	..	47,322
Blackburn (2)	W. H. Hornby .....	..	..	1	..	..	..	51,712
	W. Coddington .....	..	..	1	..	..	..	120,064
Bolton (2).....	H. Shepherd Cross.....	..	..	1	..	..	..	118,730
	Hon. Colonel Bridgeman ..	..	..	1	..	..	..	86,163
Burnley	J. S. Balfour	1	..	..	..	..	..	55,491
Bury	Rt. Hon. Sir H. James.....	..	..	..	1	..	..	55,491
Liverpool, Abercromby	W. F. Lawrence.....	..	..	1	..	..	..	55,564
„ East Toxteth	Baron H. de Worms .....	..	..	1	..	..	..	63,926
„ Everton	J. A. Willox.....	..	..	1	..	..	..	78,639
„ Exchange ..	R. Neville, Q.C.	1	..	..	..	..	..	47,704
„ Kirkdale....	Sir G. Baden-Powell .....	..	..	1	..	..	..	77,018
„ Scotland....	T. P. O'Connor .....	..	..	..	..	1	..	53,723
„ Walton	J. H. Stock.....	..	..	1	..	..	..	66,465
„ West Derby..	*Hon. W. H. Cross .....	..	..	1	..	..	..	76,971
„ West Toxteth	R. P. Houston .....	..	..	1	..	..	..	64,461
Manchester, East	Rt. Hon. A. J. Balfour .....	..	..	1	..	..	..	85,407
„ North.....	C. E. Schwann	1	..	..	..	..	..	76,629
„ N'th-East	Rt. Hon. Sir J. Fergusson.	..	..	1	..	..	..	72,794
„ N'th-West	Sir W. H. Houldsworth ..	..	..	1	..	..	..	67,638
„ South....	Sir Henry Roscoe	1	..	..	..	..	..	80,051
„ S'th-West	Jacob Bright	1	..	..	..	..	..	71,968
Oldham (2)	J. M. Cheetham	1	..	..	..	..	..	183,871
	J. T. Hibbert	1	..	..	..	..	..	111,696
Preston (2)	R. W. Hanbury .....	..	..	1	..	..	..	71,458
	W. E. M. Tomlinson.....	..	..	1	..	..	..	61,520
Rochdale.....	T. B. Potter.....	1	..	..	..	..	..	68,879
Salford, North	W. H. Holland	1	..	..	..	..	..	67,740
„ South	Sir H. H. Howarth .....	..	..	1	..	..	..	71,288
„ West	Lees Knowles .....	..	..	1	..	..	..	55,349
St. Helens	H. Seton-Karr .....	..	..	1	..	..	..	55,013
Warrington	R. Pierpoint .....	..	..	1	..	..	..
Wigan	Sir F. S. Powell .....	..	..	1	..	..	..
		21	1	33	1	1	..	3,906,873
* Died Dec. 11, 1892.								

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paranllite	
LEICESTER (6).								
County Divisions (4).								
Bosworth, or W.....	C. B. McLaren	1	..	..	..	..	..	57,24
Harborough, or S.....	J. W. Logan	1	..	..	..	..	..	59,30
Loughborough, or M..	J. E. Johnson-Ferguson ..	1	..	..	..	..	..	55,10
Melton, or E.....	Marquis of Granby .....	..	..	1	..	..	..	59,85
		3	..	1	..	..	..	231,62
Boroughs (2).								
Leicester (2)	J. A. Picton.....	1	..	..	..	..	..	142,05
	Sir J. Whitehead	1	..	..	..	..	..
		5	..	1	..	..	..	373,67
LINCOLN (11).								
County Divisions (7).								
Brigg, or N. Lindsey..	S. D. Waddy, Q.C.....	1	..	..	..	..	..	49,15
Gainsboro', or W. L'sey	J. Bennett	1	..	..	..	..	..	49,58
Horncastle, or S. L'sey	Rt. Hon. E. Stanhope .....	..	..	1	..	..	..	46,07
Louth, or E. Lindsey.	R. W. Perks	1	..	..	..	..	..	46,80
Sleaford, or N. Kestevn	Rt. Hon. H. Chaplin.....	..	..	1	..	..	..	45,47
Spalding, or Holland..	Halley Stewart	1	..	..	..	..	..	49,21
Stamford, or S. Kest'vn	H. J. Cust .....	..	..	1	..	..	..	47,61
		4	..	3	..	..	..	334,09
Boroughs (4).								
Boston	W. J. Ingram	1	..	..	..	..	..	18,91
Grantham	H. H. Lopes .....	..	..	1	..	..	..	17,11
Great Grimsby	Henri Josse.....	1	..	..	..	..	..	58,60
Lincoln	W. Crosfield	1	..	..	..	..	..	43,91
		7	..	4	..	..	..	472,71
MIDDLESEX (47).								
County Divisions (7).								
Brentford	J. Bigwood .....	..	..	1	..	..	..	69,71
Ealing	Rt. Hon. Lord G. Hamilton	..	..	1	..	..	..	70,71
Enfield	Captain H. F. Bowles .....	..	..	1	..	..	..	84,31
Harrow	W. Ambrose.....	..	..	1	..	..	..	96,71
Hornsey	H. C. Stephens .....	..	..	1	..	..	..	78,01
Tottenham	Joseph Howard .....	..	..	1	..	..	..	97,11
Uxbridge	F. D. Dixon Hartland .....	..	..	1	..	..	..	67,71
		..	..	7	..	..	..	564,61
Boroughs (40).								
Bethnal Green, N.E..	George Howell	1	..	..	..	..	..	66,81
" " S.W..	E. H. Pickersgill	1	..	..	..	..	..	62,31
Chelsea	C. A. Whitmore .....	..	..	1	..	..	..	96,21
City of London (2)...	Sir R. Hanson .....	..	..	1	..	..	..	37,61
	A. G. H. Gibbs .....	..	..	1	..	..	..
Finsbury, Central....	D. Naoroji	1	..	..	..	..	..	65,81

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Farmerite	
MIDDLESEX.—CON.								
Finsbury, East	J. Rowlands	1	..	..	..	..	..	45,306
„ Holborn ..	Sir Charles Hall, Q.C. ....	..	..	1	..	..	..	70,918
Fulham	W. H. Fisher .....	..	..	1	..	..	..	91,640
Hackney, Central	Sir A. Scoble, Q.C. ....	..	..	1	..	..	..	64,760
„ North	W. R. Bousfield, Q.C. ....	..	..	1	..	..	..	77,170
„ South	Sir Charles Russell, Q.C. ...	1	..	..	..	..	..	87,601
Hammersmith	General Goldsworthy ....	..	..	1	..	..	..	97,237
Hampstead	E. Broadie-Hoare .....	..	..	1	..	..	..	68,425
Islington, East	B. L. Cohen .....	..	..	1	..	..	..	83,883
„ North	G. C. T. Bartley .....	..	..	1	..	..	..	90,272
„ South	Sir Albert Rollitt .....	..	..	1	..	..	..	71,910
„ West	T. Lough	1	..	..	..	..	..	73,368
Kensington, North ..	F. C. Frye	1	..	..	..	..	..	82,656
„ South ..	Sir Algernon Borthwick ..	..	..	1	..	..	..	83,665
Marylebone, East	E. Boulnois .....	..	..	1	..	..	..	66,673
„ West	F. Seager Hunt .....	..	..	1	..	..	..	75,708
Paddington, North ..	John Aird .....	..	..	1	..	..	..	64,671
„ South ..	Rt. Hon. Lord R. Churchill	..	..	1	..	..	..	53,167
Shoreditch, Haggerstn	W. R. Cremer	1	..	..	..	..	..	56,356
„ Hoxton ..	Alderman James Stuart ..	1	..	..	..	..	..	67,653
St. George's, Hn'vr-sq.	Rt. Hon. G. J. Goschen ..	..	..	..	1	..	..	78,362
St. Pancras, East	R. G. Webster .....	..	..	1	..	..	..	60,844
„ North ..	T. H. Bolton	1	..	..	..	..	..	59,126
„ South ..	Sir Julian Goldsmid .....	..	..	..	1	..	..	53,767
„ West	H. R. Graham .....	..	..	1	..	..	..	60,700
Strand	Hon. W. F. D. Smith ....	..	..	1	..	..	..	64,674
Tower Hamlets :								
Bow and Bromley	J. M. Mc.Donald	1	..	..	..	..	..	88,645
Limehouse	J. S. Wallace	1	..	..	..	..	..	55,232
Mile End	Spencer Charrington .....	..	..	1	..	..	..	48,850
Poplar	Sidney Buxton	1	..	..	..	..	..	78,052
St. George	J. W. Benn	1	..	..	..	..	..	47,913
Stepney	F. W. Isaacson .....	..	..	1	..	..	..	58,715
Whitechapel	Samuel Montagu	1	..	..	..	..	..	74,420
Westminster	W. Burdett-Coutts .....	..	..	1	..	..	..	55,760
		15	..	30	2	..	..	3,251,703
MONMOUTH (4).								
County Divisions (3).								
Northern	Captain T. P. Price	1	..	..	..	..	..	62,690
Southern	Hon. F. C. Morgan .....	..	..	1	..	..	..	66,133
Western	C. M. Warmington	1	..	..	..	..	..	64,695
Borough (1).								
Monmouth Group	Albert Spicer	2	..	1	..	..	..	193,518
		1	..	..	..	..	..	58,742
		3	..	1	..	..	..	252,260

HOUSE OF COMMONS.

HOUSE OF COMMONS.								
Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
NORFOLK (10).								
<i>County Divisions (6).</i>								
Eastern	R. J. Price	1	..	..	..	..	..	40,69
Midland	C. Higgins, Q.C.	1	..	..	..	..	..	49,60
Northern	H. Cozens-Hardy, Q.C.	1	..	..	..	..	..	51,07
North-Western	Joseph Arch .....	..	1	..	..	..	..	51,27
Southern	F. Taylor .....	..	..	..	1	..	..	49,73
South-Western	T. L. Hare .....	..	..	1	..	..	..	47,13
<i>Boroughs (4).</i>								
Great Yarmouth	J. M. Moorson, Q.C.	1	..	..	..	..	..	49,31
King's Lynn	T. Gibson Bowles .....	..	..	1	..	..	..	18,26
Norwich (2).....	S. Hoare .....	..	..	1	..	..	..	100,97
	J. J. Colman	1	..	..	..	..	..	100,97
		5	1	3	1	..	..	458,06
NORTHAMPTON (7).								
<i>County Divisions (4).</i>								
Eastern	F. A. Channing	1	..	..	..	..	..	65,49
Mid	Hon. C. R. Spencer	1	..	..	..	..	..	48,79
Northern	Lord Burghley .....	..	..	1	..	..	..	46,72
Southern	D. C. Guthrie	1	..	..	..	..	..	46,62
<i>Boroughs (3).</i>								
Northampton (2) ..	H. Labouchere	1	..	..	..	..	..	70,87
	M. P. Manfield	1	..	..	..	..	..	70,87
Peterborough	A. C. Morton	1	..	..	..	..	..	26,46
		6	..	1	..	..	..	304,97
NORTH'MBERLAND (8).								
<i>County Divisions (4).</i>								
Berwick-on-Tweed ..	Sir Edward Grey	1	..	..	..	..	..	52,44
Hexham	*N. G. Clayton .....	..	..	1	..	..	..	51,58
Tyneside	J. A. Peace	1	..	..	..	..	..	69,64
Wansbeck	C. Fenwick .....	..	1	..	..	..	..	59,70
<i>Boroughs (4).</i>								
Morpeth	Thomas Burt	2	1	1	..	..	..	233,37
		..	1	..	..	..	..	40,13
Newcastle-on-T'n (2) {	Alderman C. F. Hamond ..	..	..	1	..	..	..	186,32
	Rt. Hon. John Morley	1	..	..	..	..	..	186,32
Tynemouth	R. S. Donkin .....	..	..	1	..	..	..	46,26
		3	2	3	..	..	..	506,09
NOTTINGHAM (7).								
<i>County Divisions (4).</i>								
Bassetlaw	Sir F. Milner .....	..	..	1	..	..	..	51,45
Mansfield	J. C. Williams	1	..	..	..	..	..	65,79
Newark	Viscount Newark .....	..	..	1	..	..	..	50,03
Rushcliffe	J. E. Ellis	1	..	..	..	..	..	66,61
		2	..	2	..	..	..	233,89
* Unseated on petition.								

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliam'tary Population, 1891.
		Liberal.	Labour.	Constive	Liberal U.	Nationlst	Parn'llite	
NOTTINGHAM.—CON.								
<i>Boroughs (3).</i>								
Nottingham, East....	Arnold Morley	1	..	..	..	..	..	69,181
„ South ..	H. Smith Wright .....	..	..	1	..	..	..	60,487
„ West ..	Colonel Seely .....	..	..	..	1	..	..	82,037
		3	..	3	1	..	..	445,599
OXFORD (4).								
<i>County Divisions (3).</i>								
Banbury, or N.	Sir B. Samuelson	1	..	..	..	..	..	43,861
Henley, or S.	Hon. F. Parker .....	..	..	1	..	..	..	48,145
Woodstock, or M.....	G. R. Benson	1	..	..	..	..	..	50,464
		2	..	1	..	..	..	142,470
<i>Borough (1).</i>		..	..	1	..	..	..	45,741
Oxford	Sir George Chesney	2	..	2	..	..	..	188,211
RUTLAND (1).								
<i>County Division (1).</i>								
Rutland	G. H. Finch .....	..	..	1	..	..	..	20,659
SALOP (5).								
<i>County Divisions (4).</i>								
Ludlow, or S.....	R. J. More .....	..	..	..	1	..	..	55,920
Newport, or N.	Colonel Kenyon Slaney....	..	..	1	..	..	..	53,035
Oswestry, or W.....	Stanley Leighton .....	..	..	1	..	..	..	54,178
Wellington, or M.....	A. H. Brown .....	..	..	..	1	..	..	46,224
		..	..	2	2	..	..	209,357
<i>Borough (1).</i>		..	..	1	..	..	..	26,967
Shrewsbury.....	H. D. Greene, Q.C. ....	..	..	3	2	..	..	236,324
SOMERSET (10).								
<i>County Divisions (7).</i>								
Bridgwater	E. J. Stanley .....	..	..	1	..	..	..	48,226
Eastern	H. Hobhouse .....	..	..	..	1	..	..	50,152
Frome	J. E. Barlow	1	..	..	..	..	..	53,552
Northern.....	T. Courtenay Warner	1	..	..	..	..	..	53,418
Southern	Edward Strachey	1	..	..	..	..	..	51,300
Wellington, or W.....	Sir A. Acland-Hood .....	..	..	1	..	..	..	48,122
Wells	Sir R. Paget .....	..	..	1	..	..	..	55,569
		3	..	3	1	..	..	360,339
<i>Boroughs (3).</i>		..	..	1	..	..	..	54,550
Bath (2)	Colonel Wyndham Murray.	..	..	..	1	..	..	18,026
Taunton	E. R. Wodehouse .....	..	..	1	..	..	..	432,915
	A. P. Allsopp	3	..	5	2	..	..

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.					Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal Unionist.	Nationalist		Parliamentary
STAFFORD (17).							
<i>County Divisions (7).</i>							
Burton.....	Sidney Evershed	1	..	..	..	..	58,640
Handsworth	Sir H. Meysey Thompson..	..	..	..	1	..	84,782
Kingswinford.....	A. Staveley Hill .....	..	..	1	..	..	47,665
Leek	Charles Bill.....	..	..	1	..	..	56,711
Lichfield	Major L. Darwin .....	..	..	..	1	..	52,006
North-Western	James Heath .....	..	..	1	..	..	63,166
Western	Hamar A. Bass .....	..	..	..	1	..	56,546
		1	..	3	3	..	419,516
<i>Boroughs (10).</i>							
Hanley	W. Woodall.....	1	..	..	..	..	86,845
Newcastle-under-Lyme	W. Allen	1	..	..	..	..	54,184
Stafford	C. E. Shaw	1	..	..	..	..	20,270
Stoke-on-Trent	Hon. G. Leveson-Gower ..	1	..	..	..	..	75,352
Walsall	*Frank James .....	..	..	1	..	..	71,791
Wednesbury	W. Lloyd .....	..	..	1	..	..	69,083
West Bromwich	Ernest Spencer .....	..	..	1	..	..	59,489
Wolverhampton, E. ..	Rt. Hon. H. H. Fowler....	1	..	..	..	..	54,511
„ S. ..	Rt. Hon. C. P. Villiers .....	..	..	..	1	..	57,096
„ W....	Sir A. Hickman .....	..	..	1	..	..	62,718
		6	..	7	4	..	1,030,855
SUFFOLK (8).							
<i>County Divisions (5).</i>							
Eye, or N.E.	F. Stephenson	1	..	..	..	..	54,825
Lowestoft, or N.	H. S. Foster .....	..	..	1	..	..	61,654
Stowmarket, or N.W..	S. J. Stern	1	..	..	..	..	55,099
Sudbury, or S.	Cuthbert Quilter .....	..	..	..	1	..	55,655
Woodbridge, or S.E...	R. L. Everett	1	..	..	..	..	56,539
		3	..	1	1	..	283,772
<i>Boroughs (3).</i>							
Bury St. Edmunds ..	Lord F. Hervey .....	..	..	1	..	..	16,630
Ipswich (2)	Sir C. Dalrymple .....	..	..	1	..	..	57,360
	Lord Elcho .....	..	..	1	..	..
		3	..	4	1	..	357,762
SURREY (22).							
<i>County Divisions (6).</i>							
Chertsey, or N.W.....	C. H. Coombe .....	..	..	1	..	..	61,968
Epsom, or M.....	T. T. Bucknill.....	..	..	1	..	..	70,103
Guildford, or S.W.....	Hon. St. John Brodrick ..	..	..	1	..	..	67,722
Kingston	Sir R. Temple.....	..	..	1	..	..	85,367
Reigate, or S.E.....	H. Cubitt .....	..	..	1	..	..	64,453
Wimbledon, or N.E...	Cosmo Bonsor.....	..	..	1	..	..	69,236
		..	..	6	..	..	418,849
* Unseated on petition.							

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliam'ntary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Par'n'lite	
SURREY.—CON.								
<i>Boroughs (16).</i>								
Battersea	John Burns .....	..	1	..	..	..	..	97,204
Camberwell, Dulwich..	J. Blundell Maple .....	..	..	1	..	..	..	83,272
„ North ..	E. H. Bayley	1	..	..	..	..	..	88,932
„ Peckham.	F. G. Banbury .....	..	..	1	..	..	..	83,482
Clapham	P. M. Thornton .....	..	..	1	..	..	..	96,952
Croydon	Hon. Sidney Herbert .....	..	..	1	..	..	..	102,697
Lambeth, Brixton....	Marquis of Carmarthen ..	..	..	1	..	..	..	70,356
„ Kennington	Mark H. Beaufoy	1	..	..	..	..	..	73,919
„ North	Alderman Coldwells	1	..	..	..	..	..	62,516
„ Norwood ..	C. E. Tritton .....	..	..	1	..	..	..	68,411
Newington, Walworth.	W. Saunders	1	..	..	..	..	..	59,040
„ West	Captain Cecil Norton	1	..	..	..	..	..	56,623
Southwark, Berm'ndsy	R. V. Barrow	1	..	..	..	..	..	82,898
„ Rotherhithe	J. C. Macdona.....	..	..	1	..	..	..	73,662
„ West	R. K. Causton.....	1	..	..	..	..	..	66,770
Wandsworth	H. Kimber .....	..	..	1	..	..	..	113,233
		7	1	14	..	..	..	1,698,816
SUSSEX (9).								
<i>County Divisions (6).</i>								
Chichester, or S.W. ..	Lord W. G. Lennox .....	..	..	1	..	..	..	54,357
Eastbourne, or S.	Vice-Admiral E. Field ....	..	..	1	..	..	..	66,468
East Grinstead, or N..	Hon. A. Gathorne-Hardy..	..	..	1	..	..	..	52,525
Horsham, or N.W. ..	Rt. Hon. Sir W. Barttelot..	..	..	1	..	..	..	52,977
Lewes, or M.	Sir H. Fletcher .....	..	..	1	..	..	..	64,026
Rye, or E.	A. M. Brookfield.....	..	..	1	..	..	..	57,090
		..	..	6	..	..	..	347,443
<i>Boroughs (3).</i>								
Brighton (2)	G. W. E. Loder .....	..	..	1	..	..	..	142,121
	Sir W. T. Marriott, Q.C. ..	..	..	1	..	..	..
Hastings	Wilson Noble .....	..	..	1	..	..	..	60,878
		..	..	9	..	..	..	550,442
WARWICK (14).								
<i>County Divisions (4).</i>								
Nuneaton, or N.E. ..	F. A. Newdigate.....	..	..	1	..	..	..	53,280
Rugby, or S.E.	H. P. Cobb	1	..	..	..	..	..	49,130
Stratf'd-on-A., or S.W.	A. B. Freeman Mitford....	..	..	1	..	..	..	46,440
Tamworth, or N.	P. A. Muntz .....	..	..	1	..	..	..	54,134
		1	..	3	..	..	..	202,984

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliam'ntary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paran'liste	
WARWICK.—CON.								
<i>Boroughs (10).</i>								
Aston Manor	Captain Grice-Hutchinson.	..	..	1	..	..	..	68,639
Birm'gham, Bordesley	Jesse Collings .....	..	..	..	1	..	..	82,863
„ Central..	J. A. Bright.....	..	..	..	1	..	..	59,099
„ East	Rt. Hon. H. Matthews ....	..	..	1	..	..	..	65,683
„ Edgbaston	G. Dixon .....	..	..	..	1	..	..	67,682
„ North ..	Alderman Kenrick.....	..	..	..	1	..	..	62,948
„ South ..	J. Powell Williams .....	..	..	..	1	..	..	70,334
„ West....	Rt. Hon. J. Chamberlain ..	..	..	..	1	..	..	69,508
Coventry	W. H. W. Ballantine	1	..	..	..	..	..	54,743
Warwick & Leamington	Rt. Hon. A. W. Peel .....	..	..	..	1	..	..	39,102
		2	..	5	7	..	..	843,585
WESTMORLAND (2).								
<i>County Divisions (2).</i>								
Appleby, or N.	Sir Joseph Savory .....	..	..	1	..	..	..	31,176
Kendal, or S.	Captain J. F. Bagot .....	..	..	1	..	..	..	34,922
		..	..	2	..	..	..	66,098
WILTS (6).								
<i>County Divisions (5).</i>								
Chippenham, or N.W.	Sir J. D. Poynder .....	..	..	1	..	..	..	44,356
Cricklade, or N.....	John Husband	1	..	..	..	..	..	59,414
Devizes, or E.	C. E. Hobhouse	1	..	..	..	..	..	48,267
Westbury, or W.	G. P. Fuller	1	..	..	..	..	..	52,669
Wilton, or S.	Viscount Folkestone .....	..	..	1	..	..	..	42,901
		3	..	2	..	..	..	247,607
<i>Borough (1).</i>								
Salisbury.....	E. H. Hulse .....	..	..	1	..	..	..	17,362
		3	..	3	..	..	..	264,969
WORCESTER (8).								
<i>County Divisions (5).</i>								
Bewdley, or W.	A. Baldwin .....	..	..	1	..	..	..	52,018
Droitwich, or M.	R. B. Martin .....	..	..	..	1	..	..	48,281
Eastern	J. A. Chamberlain .....	..	..	..	1	..	..	59,357
Evesham, or S.....	Sir E. Lechmere .....	..	..	1	..	..	..	49,538
Northern.....	B. Hingley	1	..	..	..	..	..	58,437
		1	..	2	2	..	..	267,631
<i>Boroughs (3).</i>								
Dudley.....	Brooke Robinson .....	..	..	1	..	..	..	90,223
Kidderminster	A. F. Godson, Q.C. ....	..	..	1	..	..	..	26,905
Worcester	Hon. G. H. Allsopp .....	..	..	1	..	..	..	42,899
		1	..	5	2	..	..	427,658

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
YORKSHIRE (52).								
County Divisions (26).								
East Riding :								
Buckrose	A. Holden	1	..	..	..	..	..	50,676
Holderness	Commander Bethell .....	..	..	1	..	..	..	41,479
Howdenshire	Captain W. H. Wilson-Todd	..	..	1	..	..	..	49,627
North Riding :								
Cleveland	H. F. Pease.....	1	..	..	..	..	..	55,917
Richmond	G. W. Elliot .....	..	..	1	..	..	..	54,450
Thirsk and Malton ..	J. G. Lawson .....	..	..	1	..	..	..	57,191
Whitby	E. W. Beckett.....	..	..	1	..	..	..	54,781
West Riding :								
Barkeston Ash	Colonel Gunter .....	..	..	1	..	..	..	48,470
Barnsley	Earl Compton.....	1	..	..	..	..	..	78,844
Colne Valley	Sir J. Kitson	1	..	..	..	..	..	59,344
Doncaster	C. J. Fleming	1	..	..	..	..	..	73,157
Elland	Alderman T. Wayman	1	..	..	..	..	..	64,632
Hallamshire	Sir F. Mappin.....	1	..	..	..	..	..	73,254
Holmfirth	H. J. Wilson	1	..	..	..	..	..	65,160
Keighley	Isaac Holden	1	..	..	..	..	..	63,263
Morley	A. E. Hutton	1	..	..	..	..	..	65,219
Normanton.....	B. Pickard .....	..	1	..	..	..	..	72,013
Osgoldcross	John Austin	1	..	..	..	..	..	66,779
Otley	J. Barran.....	1	..	..	..	..	..	61,746
Pudsey.....	Briggs Priestley	1	..	..	..	..	..	49,252
Ripon	J. L. Wharton .....	..	..	1	..	..	..	54,925
Rotherham	A. H. D. Acland.....	1	..	..	..	..	..	78,578
Shipley	W. P. Byles.....	..	1	..	..	..	..	62,166
Skipton	C. S. Roundell	1	..	..	..	..	..	58,213
Sowerby	Rt. Hon. J. W. Mellor, Q.C.	1	..	..	..	..	..	63,192
Spenn Valley	T. P. Whittaker	1	..	..	..	..	..	57,402
		17	2	7	..	..	..	1,579,730
Boroughs (26).								
East Riding :								
Hull, Central	H. S. King .....	..	..	1	..	..	..	65,565
„ East	Clarence Smith	1	..	..	..	..	..	55,492
„ West	C. H. Wilson	1	..	..	..	..	..	78,603
North Riding :								
Middlesbrough	J. H. Wilson .....	..	1	..	..	..	..	98,899
Scarborough	Sir G. Sitwell .....	..	..	1	..	..	..	33,776
York (2)	J. G. Butcher.....	..	..	1	..	..	..	66,984
	F. Lockwood, Q.C.....	1	..	..	..	..	..
West Riding :								
Bradford, Central	Rt. Hon. G. Shaw-Lefevre.	1	..	..	..	..	..	65,847
„ East	W. S. Caine.....	1	..	..	..	..	..	79,545
„ West.....	A. Illingworth.....	1	..	..	..	..	..	70,969
Dewsbury	Mark Oldroyd	1	..	..	..	..	..	72,983
Halifax (2)	Thomas Shaw.....	1	..	..	..	..	..	82,863
	Rt. Hon. J. Stansfield	1	..	..	..	..	..
Huddersfield	W. Summers	1	..	..	..	..	..	96,495

HOUSE OF COMMONS.

HOUSE OF COMMONS.								
Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal Unionist	Nationalist	Parliamentary	
YORKSHIRE.—CON.								
West Riding:								
Leeds, Central	G. W. Balfour.....	..	..	1	..	..	69,135
„ East	J. Lawrence-Gane, Q.C. ..	1	..	..	..	..	64,609
„ North	Rt. Hon. W. L. Jackson ..	..	..	1	..	..	81,547
„ South	J. L. Walton, Q.C.....	1	..	..	..	..	70,018
„ West	Herbert Gladstone.....	1	..	..	..	..	82,197
Pontefract	Hon. Rowland Winn.....	..	..	1	..	..	16,407
Sheffield, Attercliffe ..	Hon. B. Coleridge, Q.C....	1	..	..	..	..	72,462
„ Brightside..	Rt. Hon. A. J. Mundella ..	1	..	..	..	..	67,083
„ Central	Colonel Howard Vincent ..	..	..	1	..	..	66,461
„ Ecclesall ..	E. Ashmead-Bartlett.....	..	..	1	..	..	63,302
„ Hallam	C. B. Stuart-Wortley.....	..	..	1	..	..	54,935
Wakefield	A. H. Charlesworth .....	..	..	1	..	..	37,269
		32	3	17	..	..	3,193,176
UNIVERSITIES (5).								
Cambridge (2)	Professor R. C. Jebb .....	..	..	1	..	..	....
	Rt. Hon. Sir J. E. Gorst ..	..	..	1	..	..	....
Oxford (2)	Rt. Hon. Sir J. Mowbray..	..	..	1	..	..	....
	J. G. Talbot.....	..	..	1	..	..	....
London	Rt. Hon. Sir John Lubbock	..	..	..	1	..	....
		..	..	4	1	..	....
WALES.								
ANGLESEY (1).								
County Division (1).								
Anglesey	T. P. Lewis	1	..	..	..	..	50,079
BRECON (1).								
County Division (1).								
Brecon.....	William Fuller Maitland ..	1	..	..	..	..	54,550
CARDIGAN (1).								
County Division (1).								
Cardigan	W. Bowen Rowlands, Q.C..	1	..	..	..	..	62,596
CARMARTHEN (3).								
County Divisions (2).								
Eastern	Abel Thomas	1	..	..	..	..	49,135
Western	J. Lloyd Morgan	1	..	..	..	..	46,926
Borough (1).								
Carmarthen Group ..	Major Jones	2	..	..	..	..	96,061
		1	..	..	..	..	34,513
		3	..	..	..	..	130,574

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paran'lite	
CARNARVON (3).								
County Divisions (2).								
Arfon, or N.	W. Rathbone	1	..	..	..	..	..	45,822
Eifion, or S.	J. B. Roberts	1	..	..	..	..	..	42,826
		2	..	..	..	..	..	88,648
Borough (1).								
Carnarvon Group	D. Lloyd George.....	1	..	..	..	..	..	29,577
		3	..	..	..	..	..	118,225
DENBIGH (3).								
County Divisions (2).								
Eastern	Rt. Hon. G. O. Morgan ..	1	..	..	..	..	..	47,317
Western	J. H. Roberts	1	..	..	..	..	..	46,417
		2	..	..	..	..	..	93,734
Borough (1).								
Denbigh Group	Hon. G. T. Kenyon .....	..	..	1	..	..	..	24,216
		2	..	1	..	..	..	117,950
FLINT (2).								
County Division (1).								
Flint	Samuel Smith	1	..	..	..	..	..	53,034
Borough (1).								
Flint Group	J. H. Lewis	1	..	..	..	..	..	23,251
		2	..	..	..	..	..	76,235
GLAMORGAN (10).								
County Divisions (5).								
Eastern	Alfred Thomas	1	..	..	..	..	..	72,465
Gower, or W.	D. D. Randall.....	1	..	..	..	..	..	55,261
Mid	S. T. Evans	1	..	..	..	..	..	60,968
Rhondda	W. Abraham	1	..	..	..	..	..	68,720
Southern	A. J. Williams	1	..	..	..	..	..	75,337
		5	..	..	..	..	..	332,751
Boroughs (5).								
Cardiff Group.....	Sir E. J. Reed.....	1	..	..	..	..	..	132,163
Merthyr Tydvil	D. A. Thomas	1	..	..	..	..	..	104,008
	W. Pritchard Morgan	1	..	..	..	..	..
Swansea District	Sir H. H. Vivian	1	..	..	..	..	..	63,140
„ Town	R. D. Burnie	1	..	..	..	..	..	57,566
		10	..	..	..	..	..	689,628
MERIONETH (1).								
County Division (1).								
Merioneth	T. E. Ellis	1	..	..	..	..	..	49,204

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paranlite	
MONTGOMERY (2).								
County Division (1).								
Montgomery	Stuart Rendel.....	1	..	..	..	..	..	40,214
Borough (1).								
Montgomery Group ..	Sir Pryce Pryce Jones .....	..	..	1	..	..	..	17,789
		1	..	1	..	..	..	58,003
PEMBROKE (2).								
County Division (1).								
Pembroke	W. R. Davies	1	..	..	..	..	..	53,921
Borough (1).								
Pembroke Group	C. F. E. Allen.....	1	..	..	..	..	..	35,204
		2	..	..	..	..	..	89,125
RADNOR (1).								
County Division (1).								
Radnor	F. Edwards	1	..	..	..	..	..	21,791
SCOTLAND.								
ABERDEEN (4).								
County Divisions (2).								
Eastern	T. R. Buchanan	1	..	..	..	..	..	79,926
Western	Dr. R. Farquharson	1	..	..	..	..	..	65,210
Boroughs (2).								
Aberdeen, North	W. A. Hunter	2	..	..	..	..	..	145,136
„ South	Professor J. Bryce	1	..	..	..	..	..	59,992
		1	..	..	..	..	..	61,631
		4	..	..	..	..	..	266,759
ARGYLL (1).								
County Division (1).								
Argyll	D. H. Macfarlane	1	..	..	..	..	..	61,183
AYR (4).								
County Divisions (2).								
Northern.....	Hon. T. H. Cochrane .....	..	..	..	1	..	..	75,801
Southern	E. Wason.....	1	..	..	..	..	..	88,785
Boroughs (2).								
Ayr Group	W. Birkmyre	1	..	..	1	..	..	164,586
Kilmarnock Group ..	S. Williamson.....	1	..	..	..	..	..	46,200
		1	..	..	..	..	..	79,828
		3	..	..	1	..	..	290,614

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paranillite	
BANFF (1). <i>County Division (1).</i> Banff	R. W. Duff	1	..	..	..	..	..	52,663
BERWICK (1). <i>County Division (1).</i> Berwick	Rt. Hon. E. Marjoribanks..	1	..	..	..	..	..	32,368
BUTE (1). <i>County Division (1).</i> Bute	A. G. Smith, Q.C. ....	..	..	1	..	..	..	18,217
CAITHNESS (2). <i>County Division (1).</i> Caithness	Dr. G. B. Clark	1	..	..	..	..	..	28,587
<i>Borough (1).</i> Wick Group	Sir J. Pender .....	..	..	..	1	..	..	18,103
		1	..	..	1	..	..	46,690
CLACKMANNAN and KINROSS (1). <i>County Division (1).</i> Clackm'n'an & Kinross	Rt. Hon. J. B. Balfour	1	..	..	..	..	..	44,309
DUMBARTON (1). <i>County Division (1).</i> Dumbarton.....	Captain J. Sinclair	1	..	..	..	..	..	77,446
DUMFRIES (2). <i>County Division (1).</i> Dumfries.....	W. J. Maxwell .....	..	..	..	1	..	..	55,290
<i>Borough (1).</i> Dumfries Group	R. T. Reid, Q.C.....	1	..	..	..	..	..	26,183
		1	..	..	1	..	..	81,473
EDINBURGH (6). <i>County Division (1).</i> Midlothian	Rt. Hon. W. E. Gladstone.	1	..	..	..	..	..	86,839
<i>Boroughs (5).</i> Edinburgh, Central ..	W. Mc. Ewan	1	..	..	..	..	..	63,392
„ East	Robert Wallace	1	..	..	..	..	..	61,931
„ South....	Herbert W. Paul	1	..	..	..	..	..	82,337
„ West	Viscount Wolmer .....	..	..	..	1	..	..	53,565
Leith Group	Munro Ferguson	1	..	..	..	..	..	84,770
		5	..	..	1	..	..	432,834

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
ELGIN & NAIRN (2). <i>County Division (1).</i>								
Elgin and Nairn	J. Seymour Keay	1	..	..	..	..	..	37,613
<i>Borough (1).</i>								
Elgin Group	A. Asher, Q.C.	1	..	..	..	..	..	33,292
		2	..	..	..	..	..	70,905
FIFE (4).								
<i>County Divisions (2).</i>								
Eastern	H. H. Asquith, Q.C.	1	..	..	..	..	..	50,996
Western	A. Birrell	1	..	..	..	..	..	58,458
<i>Boroughs (2).</i>								
Kirkcaldy Group	J. H. Dalziel	2	..	..	..	..	..	109,454
St. Andrews Group ..	H. T. Anstruther	1	..	..	..	..	..	36,901
		..	..	..	1	..	..	18,941
		3	..	..	1	..	..	165,296
FORFAR (4).								
<i>County Division (1).</i>								
Forfar.....	J. C. Rigby, Q.C.	1	..	..	..	..	..	67,515
<i>Boroughs (3).</i>								
Dundee (2)	John Leng	1	..	..	..	..	..	153,051
	E. Robertson	1	..	..	..	..	..	58,055
Montrose Group	J. S. Will, Q.C.	1	..	..	..	..	..	278,621
		4	..	..	..	..	..
HADDINGTON (1).								
<i>County Division (1).</i>								
Haddington	R. B. Haldane, Q.C.	1	..	..	..	..	..	37,429
INVERNESS (2).								
<i>County Division (1).</i>								
Inverness	Dr. D. Macgregor	1	..	..	..	..	..	69,829
<i>Borough (1).</i>								
Inverness Group	Gilbert Beith	1	..	..	..	..	..	28,071
		2	..	..	..	..	..	97,900
KINCARDINE (1).								
<i>County Division (1).</i>								
Kincardine	J. W. Crombie	1	..	..	..	..	..	34,438
KIRKCUDBRIGHT (1).								
<i>County Division (1).</i>								
Kirkcudbright	M. J. Stewart .....	..	..	1	..	..	..	32,670

HOUSE OF COMMONS.

HOUSE OF COMMONS.							
Constituencies.	Members.	Politics.					Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist		Parliamentary
LANARK (13).							
<i>County Divisions (6).</i>							
Govan	John Wilson	1	..	..	..	..	78,512
Mid	J. Wynford Philipps	1	..	..	..	..	71,258
North-Eastern	Donald Crawford	1	..	..	..	..	85,035
North-Western	Graeme Whitelaw .....	..	..	1	..	..	75,019
Partick	J. Parker Smith .....	..	..	..	1	..	77,136
Southern	J. H. C. Hozier .....	..	..	1	..	..	52,032
		3	..	2	1	..	438,992
<i>Boroughs (7).</i>							
Glasgow, Blackfriars & Hutchesontown	A. D. Provand	1	..	..	..	..	73,784
„ Bridgeton ..	Rt. Hon. Sir G. Trevelyan ..	1	..	..	..	..	81,396
„ Camlachie ..	Alexander Cross .....	..	..	..	1	..	71,157
„ Central	J. G. A. Baird .....	..	..	1	..	..	75,379
„ College	Dr. Charles Cameron	1	..	..	..	..	98,047
„ St. Rollox ..	Sir James Carmichael	1	..	..	..	..	94,569
„ Tradeston ..	A. C. Corbett .....	..	..	..	1	..	70,649
		7	..	3	3	..	1,003,973
LINLITHGOW (1).							
<i>County Division (1).</i>							
Linlithgow	Peter Mc.Lagan	1	..	..	..	..	46,955
ORKNEY AND SHETLAND (1).							
<i>County Division (1).</i>							
Orkney and Shetland ..	L. Lyell	1	..	..	..	..	54,807
PEEBLES AND SELKIRK (1).							
<i>County Division (1).</i>							
Peebles and Selkirk ..	W. Thorburn .....	..	..	..	1	..	19,074
PERTH (3).							
<i>County Divisions (2).</i>							
Eastern	Sir J. Kinloch	1	..	..	..	..	43,645
Western	Sir D. Currie .....	..	..	..	1	..	47,916
		1	..	..	1	..	91,561
<i>Borough (1).</i>							
Perth	W. Whitelaw .....	..	..	1	..	..	29,899
		1	..	1	1	..	121,460

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Paranlite	
RENFREW (4).								
County Divisions (2).								
Eastern	H. Shaw-Stewart .....	..	..	1	..	..	..	66,137
Western	C. B. Renshaw .....	..	..	1	..	..	..	56,622
Boroughs (2).								
Greenock.....	Sir T. Sutherland .....	..	..	2	..	..	..	122,759
Paisley.....	W. Dunn	1	..	..	1	..	..	63,090
		1	..	2	1	..	..	66,418
		1	..	2	1	..	..	252,275
ROSS & CROMARTY (1).								
County Division (1).								
Ross and Cromarty ..	J. G. Weir	1	..	..	..	..	..	71,432
ROXBURGH (2).								
County Division (1).								
Roxburgh	Hon. M. Napier	1	..	..	..	..	..	34,537
Borough (1).								
Hawick Group	Thomas Shaw.....	1	..	..	..	..	..	42,244
		2	..	..	..	..	..	76,781
STIRLING (3).								
County Division (1).								
Stirling	W. Jacks	1	..	..	..	..	..	86,295
Boroughs (2).								
Falkirk Group	H. Smith	1	..	..	..	..	..	65,346
Stirling Group	H. Campbell-Bannerman..	1	..	..	..	..	..	39,987
		3	..	..	..	..	..	191,620
SUTHERLAND (1).								
County Division (1).								
Sutherland	A. Sutherland.....	1	..	..	..	..	..	21,267
WIGTOWN (1).								
County Division (1).								
Wigtown	Sir H. E. Maxwell .....	..	..	1	..	..	..	35,989
UNIVERSITIES (2).								
Edinbro' & St. Andr'ws	Sir C. Pearson .....	..	..	1	..	..	..	....
Glasgow and Aberdeen	J. A. Campbell .....	..	..	1	..	..	..	....
		..	..	2	..	..	..	....

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliam'ntary Population, 1891.
		Liberal.	Labour.	Consrtive	Liberal U.	Nationalst	Parn'llite	
IRELAND.								
ANTRIM (8).								
County Divisions (4).								
Eastern	Captain J. Mc.Calmont.....	..	..	1	..	..	..	52,032
Mid	The Hon. R. Torrens O'Neill	..	..	1	..	..	..	50,027
Northern.....	C. C. Connor .....	..	..	1	..	..	..	51,090
Southern	W. G. E. Macartney .....	..	..	1	..	..	..	51,887
Boroughs (4).								
Belfast, East	G. W. Wolff.....	..	..	1	..	..	..	85,661
„ North	Sir Edward Harland.....	..	..	1	..	..	..	67,585
„ South	W. Johnston .....	..	..	1	..	..	..	58,508
„ West.....	Arnold Forster .....	..	..	..	1	..	..	61,360
478,150								
ARMAGH (3).								
County Divisions (3).								
Mid	D. Plunket Barton, Q.C. ..	..	..	1	..	..	..	45,264
Northern.....	Colonel Saunderson .....	..	..	1	..	..	..	49,157
Southern	E. M'Hugh.....	..	..	..	..	1	..	43,219
137,640								
CARLOW (1).								
County Division (1).								
Carlow	J. Hammond .....	..	..	..	..	1	..	40,936
CAVAN (2).								
County Divisions (2).								
Eastern	S. Young .....	..	..	..	..	1	..	54,402
Western	E. F. V. Knox .....	..	..	..	..	1	..	57,515
111,917								
CLARE (2).								
County Divisions (2).								
Eastern	W. Redmond .....	..	..	..	..	..	1	61,196
Western	J. R. Maguire .....	..	..	..	..	..	1	63,287
124,483								

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliam'tary Population, 1891.
		Liberal.	Labour.	Constrive	Liberal U.	Nationalist	Parnellite	
CORK (9).								
County Divisions (7).								
Eastern	Captain Donnilan .....	..	..	..	..	1	..	49,700
Mid	Doctor C. Tanner .....	..	..	..	..	1	..	49,460
Northern.....	J. C. Flynn.....	..	..	..	..	1	..	49,240
North-Eastern	William O'Brien .....	..	..	..	..	1	..	49,870
Southern	Edward Barry .....	..	..	..	..	1	..	47,210
South-Eastern	J. Morrough .....	..	..	..	..	1	..	47,030
Western	J. Gilhooly .....	..	..	..	..	1	..	48,620
Boroughs (2).								
Cork (2)	William O'Brien .....	..	..	..	..	1	..	97,280
	Maurice Healy .....	..	..	..	..	1	..	

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal Unionist	Nationalist	Parliamentary	
FERMANAGH (2).								
<i>County Divisions (2).</i>								
Northern.....	Richard M. Dane .....	..	..	1	..	..	..	37,799
Southern	J. Magittigan .....	..	..	..	..	1	..	36,371
		..	..	1	..	1	..	74,170
GALWAY (5).								
<i>County Divisions (4).</i>								
Connemara	P. J. Foley .....	..	..	..	..	1	..	50,503
Eastern	J. Roche .....	..	..	..	..	1	..	49,083
Northern.....	Colonel Nolan.....	..	..	..	..	..	1	51,924
Southern	J. D. Sheehy .....	..	..	..	..	1	..	46,243
<i>Borough (1).</i>								
Galway	J. Pinkerton .....	..	..	..	..	3	1	197,753
		..	..	..	..	1	..	16,959
		..	..	..	..	4	1	214,712
KERRY (4).								
<i>County Divisions (4).</i>								
Eastern	J. D. Sheehan.....	..	..	..	..	1	..	44,437
Northern.....	T. Sexton .....	..	..	..	..	1	..	43,417
Southern	D. Kilbride .....	..	..	..	..	1	..	45,588
Western	Sir G. T. Esmonde.....	..	..	..	..	1	..	45,694
		..	..	..	..	4	..	179,136
KILDARE (2).								
<i>County Divisions (2).</i>								
Northern.....	P. J. Kennedy .....	..	..	..	..	1	..	32,925
Southern	M. J. Minch .....	..	..	..	..	1	..	37,281
		..	..	..	..	2	..	70,206
KILKENNY (3).								
<i>County Divisions (2).</i>								
Northern.....	P. M'Dermott.....	..	..	..	..	1	..	35,645
Southern	P. A. Chance .....	..	..	..	..	1	..	37,894
<i>Borough (1).</i>								
Kilkenny	T. B. Curran .....	..	..	..	..	2	..	73,539
		..	..	..	..	1	..	13,722
		..	..	..	..	3	..	87,261
KING'S COUNTY (2).								
<i>County Divisions (2).</i>								
Birr	B. C. Molloy .....	..	..	..	..	1	..	33,992
Tullamore	Dr. J. F. Fox .....	..	..	..	..	1	..	31,571
		..	..	..	..	2	..	65,563

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal U.	Nationalist	Parliamentary	
LEITRIM (2).								
County Divisions (2).								
North	P. A. M'Hugh.....	..	..	..	..	1	..	39,235
South	J. Tully .....	..	..	..	..	1	..	39,383
		..	..	..	..	2	..	78,618
LIMERICK (3).								
County Divisions (2).								
Eastern	J. Finucane.....	..	..	..	..	1	..	55,912
Western	W. Austin .....	..	..	..	..	1	..	56,865
		..	..	..	..	2	..	112,777
Borough (1).								
Limerick	F. A. O'Keefe .....	..	..	..	..	1	..	46,135
		..	..	..	..	3	..	158,912
LONDONDERRY (3).								
County Divisions (2).								
Northern.....	H. L. Mulholland .....	..	..	1	..	..	..	59,824
Southern	Sir T. Lea .....	..	..	..	1	..	..	58,985
		..	..	1	1	..	..	118,809
Borough (1).								
Londonderry	John Ross, Q.C.....	..	..	1	..	..	..	33,200
		..	..	2	1	..	..	152,009
LONGFORD (2).								
County Divisions (2).								
Northern.....	Justin Mc.Carthy .....	..	..	..	..	1	..	26,735
Southern	Hon. E. Blake .....	..	..	..	..	1	..	25,912
		..	..	..	..	2	..	52,647
LOUTH (2).								
County Divisions (2).								
Northern.....	Timothy Healy .....	..	..	..	..	1	..	37,571
Southern	D. Ambrose .....	..	..	..	..	1	..	33,467
		..	..	..	..	2	..	71,038
MAYO (4).								
County Divisions (4).								
Eastern	John Dillon.....	..	..	..	..	1	..	52,454
Northern.....	D. Crilly .....	..	..	..	..	1	..	53,662
Southern	J. F. X. O'Brien.....	..	..	..	..	1	..	55,987
Western	J. Deasy .....	..	..	..	..	1	..	56,931
		..	..	..	..	4	..	219,034

HOUSE OF COMMONS.

Constituencies.	Members.	Political.						Parliamentary Population, 1891.
		Liberal.	Labour.	Conservative	Liberal Unionist	Nationalist	Parliamentary	
MEATH (2).								
County Divisions (2).								
Northern.....	Michael Davitt .....	..	..	..	..	1	..	38,854
Southern	*Patrick Fullam .....	..	..	..	..	1	..	38,133
		..	..	..	..	2	..	76,987
MONAGHAN (2).								
County Divisions (2).								
Northern.....	Charles Diamond .....	..	..	..	..	1	..	43,536
Southern	F. O'Driscoll .....	..	..	..	..	1	..	42,670
		..	..	..	..	2	..	86,206
QUEEN'S CO'NTY (2).								
County Divisions (2).								
Leix	M. A. MacDonell .....	..	..	..	..	1	..	32,060
Ossory	E. Crean .....	..	..	..	..	1	..	32,823
		..	..	..	..	2	..	64,883
ROSCOMMON (2).								
County Divisions (2).								
Northern.....	M. Bodkin .....	..	..	..	..	1	..	56,706
Southern	L. P. Hayden .....	..	..	..	..	..	1	57,691
		..	..	..	..	1	1	114,397
SLIGO (2).								
County Divisions (2).								
Northern.....	B. Collery .....	..	..	..	..	1	..	48,686
Southern	Thomas Curran .....	..	..	..	..	1	..	49,327
		..	..	..	..	2	..	98,013
TIPPERARY (4).								
County Divisions (4).								
Eastern	T. J. Condon .....	..	..	..	..	1	..	44,738
Mid	J. F. Mc.Carthy .....	..	..	..	..	1	..	43,900
Northern.....	P. J. O'Brien .....	..	..	..	..	1	..	43,425
Southern	F. Mandeville .....	..	..	..	..	1	..	41,125
		..	..	..	..	4	..	173,188
TYRONE (4).								
County Divisions (4).								
Eastern	W. J. Reynolds .....	..	..	..	..	1	..	44,760
Mid	M. J. Kenny .....	..	..	..	..	1	..	43,404
Northern.....	Lord F. Hamilton .....	..	..	1	..	..	..	42,403
Southern	T. W. Russell .....	..	..	..	1	..	..	40,834
		..	..	1	1	2	..	171,401
	* Unseated on petition.							

HOUSE OF COMMONS.

Constituencies.	Members.	Politics.					Parliamentary Population, 1891.	
		Liberal	Labour.	Conservative	Liberal Unionist	Nationalist		Parnellite
WATERFORD (3).								
County Divisions (2).								
Eastern	P. J. Power .....	..	..	..	..	1	..	33,347
Western	Alfred Webb .....	..	..	..	..	1	..	37,191
Borough (1).								
Waterford	J. E. Redmond .....	..	..	..	..	2	..	70,538
		..	..	..	..	..	1	27,713
		..	..	..	..	2	1	98,251
WESTMEATH (2).								
County Divisions (2).								
Northern	J. Tuite .....	..	..	..	..	1	..	33,735
Southern	D. Sullivan .....	..	..	..	..	1	..	31,374
		..	..	..	..	2	..	65,109
WEXFORD (2).								
County Divisions (2).								
Northern	Thomas Healy .....	..	..	..	..	1	..	55,357
Southern	John Barry .....	..	..	..	..	1	..	56,421
		..	..	..	..	2	..	111,778
WICKLOW (2).								
County Divisions (2).								
Eastern	J. Sweetman .....	..	..	..	..	1	..	31,382
Western	James O'Connor .....	..	..	..	..	1	..	30,754
		..	..	..	..	2	..	62,136
UNIVERSITIES.								
Dublin University (2) {	Rt. Hon. D. R. Plunkett ..	..	..	1	..	..	..	....
	E. Carson, Q.C. ....	..	..	1	..	..	..	....
		..	..	2	..	..	..	....

The General Election of 1892, with corrections to December, shows that the Liberal gain was 52, or equal to 104 on a division, giving Mr. Gladstone a majority of 38, as shown below :—

AT DISSOLUTION, JUNE, 1892.		GENERAL ELECTION, 1892, With Corrections to December.	
Conservatives 302	} = 368 Ministerialists.	Liberals	273
Lib. Unionists 66		Irish Nationalists	72
		Parnellites	9
Liberals 216	} = 302 Opposition.	Conservatives	269
Nationalists.. 86		Dissentient Liberals	47
Ministerialist Majority 66			
			670 38

SUMMARY.

	COUNTIES.							BOROUGHES.							UNIVERSITIES.	TOTALS.											
	Members.						Population.	Members.						Population.		Members.	Population.										
	Liberal.	Labour.	Conservative.	Liberal U.	Nationalist.	Parnellite.		Total.	Liberal.	Labour.	Conservative.	Liberal U.	Nationalist.					Parnellite.	Total.								
England ..	96	6115	17	..	..	..	234	13,838,248	89	4118	14	1	..	..	226	13,626,602	4	1	5185	10237	32	1	..	..	..	465	27,464,850
Wales	19	..	..	..	..	..	19	996,583	9	..	2	..	..	..	11	521,427	..	..	28	..	2	..	..	..	..	30	1,518,010
Scotland ..	27	..	7	5	..	..	39	2,179,238	23	..	2	6	..	..	31	1,838,214	2	..	50	11	11	..	..	..	..	72	4,017,452
Ireland.....	..	..	13	2	65	5	85	3,913,219	..	..	4	2	6	4	16	791,531	2	..	..	19	4	71	9103	4,704,750			
Totals..	142	6135	24	65	5377	20,927,288	121	4126	22	7	4284	16,777,774	8	1	9263	10269	47	72	9670	37,705,062							

PRESIDENTS OF THE UNITED STATES OF AMERICA.

	YEAR.
<i>Declaration of Independence</i>	4th July, 1776
General Washington first President.....	1789 and 1793
John Adams	1797
Thomas Jefferson	1801 and 1805
James Madison	1809 and 1813
James Monroe	1817 and 1821
John Quincy Adams	1825
Gen. Andrew Jackson	1829 and 1833
Martin Van Buren	1837
Gen. William Henry Harrison (died 4th April)	1841
John Tyler (previously Vice-President)	1841
James Knox Polk	1845
General Zachary Taylor (died 9th July, 1850)	1849
Millard Fillmore (previously Vice-President).....	1850
General Franklin Pierce	1853
James Buchanan	1857
Abraham Lincoln (assassinated 14th April, 1865).....	1861 and 1865
Andrew Johnson (previously Vice-President)	1865
General Ulysses S. Grant	1869 and 1873
Rutherford Richard Hayes, after long contest with Tilden	1877
General Garfield (shot July 2; died September 19)	1881
Chester A. Arthur, Vice-President, succeeded September 20	1881
Grover Cleveland	1885
General Benjamin Harrison	1889
Grover Cleveland	1893

The United States of America form a Federal Republic, consisting of 38 partially independent States, divisible as follows:—6 Eastern, or New England, 4 Middle, 10 Southern, 18 Western; and 1 Federal district, and 8 organised Territories, the centre of North America.

The area in English square miles is estimated at 5,034,459, or 1,942,053,760 acres, exclusive of the vast district of Alaska, comprising 369,529,600 acres. One-fourth only is civilised.

The estimated population of the whole of the Territories, including the States, according to the Census of 1890, was 62,622,250, every country under Heaven being represented. The increase in the ten years 1880-1890 was 12,466,467.

THE ENGLISH MILE COMPARED WITH OTHER EUROPEAN MEASURES.

	English Statute Mile.	English Geog. Mile.	French Kilomètre.	German Geog. Mile.	Russian Verst.
English Statute Mile....	1·000	0·867	1·609	0·217	1·508
English Geog. Mile	1·153	1·000	1·855	0·250	1·738
Kilomètre	0·621	0·540	1·000	0·135	0·937
German Geog. Mile	4·610	4·000	7·420	1·000	6·953
Russian Verst.....	0·663	0·575	1·067	0·144	1·000
Austrian Mile	4·714	4·089	7·586	1·022	7·112
Dutch Ure	3·458	3·000	5·565	0·750	5·215
Norwegian Mile	7·021	6·091	11·299	1·523	10·589
Swedish Mile	6·644	5·764	10·692	1·441	10·019
Danish Mile	4·682	4·062	7·536	1·016	7·078
Swiss Stunde	2·987	2·592	4·808	0·648	4·505

	Austrian Mile.	Dutch Ure.	Norwe- gian Mile.	Swedish Mile.	Danish Mile.	Swiss Stunde.
English Statute Mile....	0·212	0·289	0·142	0·151	0·213	0·335
English Geog. Mile	0·245	0·333	0·164	0·169	0·246	0·386
Kilomètre	0·132	0·180	0·088	0·094	0·133	0·208
German Geog. Mile	0·978	1·333	0·657	0·694	0·985	1·543
Russian Verst.....	0·141	0·192	0·094	0·100	0·142	0·222
Austrian Mile	1·000	1·363	0·672	0·710	1·006	1·578
Dutch Ure	0·734	1·000	0·493	0·520	0·738	1·157
Norwegian Mile	1·489	2·035	1·000	1·057	1·499	2·350
Swedish Mile	1·409	1·921	0·948	1·000	1·419	2·224
Danish Mile	0·994	1·354	0·667	0·705	1·080	1·567
Swiss Stunde	0·634	0·864	0·425	0·449	0·638	1·000

THE INDIAN CENSUS.

From the recently issued Census returns for India, including provinces not previously enumerated, the following figures may be taken as final:—

Provinces	221,094,277	Net increase since 1881, omitting all tracks not then censused— 27,991,003.
Add Registered not censused	261,910	
Total British.....	221,356,187	
States	66,112,769	Gross increase, <i>i.e.</i> , States and Upper Burmah— 33,555,784.
Add Registered.....	690,716	
Total	66,803,485	
Total censused	287,207,046	
Registered	952,626	
Grand Total	288,159,672	

FOREIGN MONEYS AND THEIR ENGLISH EQUIVALENTS.

COUNTRY.	GOLD COINS. Denominations.	STERLING VALUE.	SILVER COINS. Denominations.	60 $\frac{7}{8}$ d., i.e., Gold to Silver as 15.5 is to 1.
*America	See United States	£ s. d.		s. d.
Argentine Republic	Argentino or 5-peso piece....	0 19 10	Peso of 100 centesimos	3 11 $\frac{1}{2}$
*Austria-Hungary	Ducat	0 9 4	<i>Florin</i> or <i>gulden</i> of 100 kreutzer	1 11 $\frac{3}{4}$
Belgium	8-florin or gulden piece.....	0 15 10 $\frac{1}{4}$	$\frac{1}{4}$ -florin	0 5 $\frac{3}{4}$
Brazil	See France, and footnote....			
Chili, Columbia, Uruguay..	10 milreis.....	1 2 5 $\frac{1}{2}$	1 milreis of 1,000 reis	2 0 $\frac{3}{4}$
China	doubloon or 5-peso piece	0 18 9	1 peso of 100 centavos.....	3 11 $\frac{1}{2}$
Denmark.....	.....	....	Tael of 10 mace or 100 conderin or 1000 cash	6 6 $\frac{1}{4}$
Egypt	10-crown piece	0 11 0 $\frac{1}{4}$	1 <i>crown</i> of 100 ore	1 0 $\frac{3}{4}$
Finland	100-piastre piece (Egyptian £)	1 0 3 $\frac{1}{2}$	1 piastre	0 2 $\frac{1}{2}$
*France.....	10-markkaa piece	0 7 11 $\frac{1}{4}$	1 markka of 100 penni.....	0 9 $\frac{1}{2}$
	10-franc piece	0 7 11 $\frac{1}{4}$	5-franc piece	3 11 $\frac{1}{2}$
*German Empire	Crown of 10 reichsmarks	0 9 9 $\frac{1}{2}$	1 <i>franc</i> of 100 centimes	0 8 $\frac{3}{4}$
*Great Britain.....	Sovereign of 20 shillings	1 0 0	1 <i>reichsmark</i> or mark of 100 pfennige	0 10 $\frac{1}{2}$
			Crown of 5 shillings	4 7 $\frac{1}{4}$
			Shilling of 12 pence.....	0 11
*Greece	See France, and footnote.			
*Holland and Java	Ducat	0 9 4 $\frac{1}{2}$	Rixdaler of 2 $\frac{1}{2}$ florins	4 2
	10-florin piece.....	0 16 6 $\frac{1}{4}$	<i>Florin</i> of 100 cents	1 8
India	Mohur of 15 rupees	1 9 2 $\frac{1}{2}$	Rupee of 16 annas, 64 pice, or 192 pies	1 10 $\frac{1}{2}$
Italy.....	See France, and footnote			
Japan	10-yen piece.....	2 0 11 $\frac{3}{4}$	1 yen of 100 sen	4 3 $\frac{1}{4}$
Mexico.....	10-peso piece	2 0 5 $\frac{1}{4}$	1 peso of 100 centavos.....	4 3 $\frac{3}{4}$
*Netherlands	See Holland.			
*Norway and Sweden.....	See Denmark, and footnote,			
Ottoman Empire	Turkish pound of 100 piastres	0 18 0 $\frac{3}{4}$	1 piastre of 40 paras	0 2
Persia	Toman of 200 shahis.....	0 9 5	Khran of 20 shahis	0 8 $\frac{1}{2}$

Intrinsic Value with Silver per Troy Ounce.

Peru	10-sol piece	1 19 7 $\frac{3}{4}$	Sol of 10 dineros or 100 cents	3 11 $\frac{1}{2}$	Intrinsic Value with Silver per Troy Ounce.
*Portugal	Crown of 10 milreis	2 4 4 $\frac{1}{2}$	Teston of 100 reis	0 4 $\frac{1}{4}$	
Roumania	See France, and footnote.				
*Russia	Imperial of 10 roubles	1 11 9	(Rouble of 100 kopecks	3 2	
Servia and Bulgaria	See France, and footnote.		(<i>Tchetvertak</i> or $\frac{1}{4}$ <i>rouble</i>	0 9 $\frac{1}{2}$	
*Spain	Doublon of 10 escudos	1 0 7 $\frac{1}{4}$	Escudo (or $\frac{1}{2}$ dollar) of 10 reals	2 0 8 $\frac{3}{4}$	
	25-peseta piece	0 19 10	Peseta of 100 centimos	0 8 $\frac{3}{4}$	
*Switzerland	See France, and footnote.				
Tunis	10-piastre piece	0 4 9 $\frac{1}{2}$	Piastre	0 6	
Turkey	See Ottoman Empire.		(Trade dollar	4 3 $\frac{3}{4}$	
*United States	Eagle of 10 dollars	2 1 14	<i>Dollar</i> of 100 cents	4 2 $\frac{3}{4}$	
Uruguay	See Chili, and footnote.		($\frac{1}{2}$ dollar of 50 cents	1 11 $\frac{3}{4}$	
Venezuela	See Peru, and footnote.				

EXPLANATORY NOTES.

FRANCE, Belgium, Italy, Greece, and Switzerland constitute what is known as the "Latin" Union, and their coins are alike in weight and fineness, differing occasionally in name. The same system has been in part adopted by Spain, Servia, Bulgaria, Russia, and Roumania, but they have not joined the Union. Francs and centimes of France, Belgium, and Switzerland are designated lire and centesimi in Italy; drachmai and lepta in Greece; dinars and paras, Servia; pesetas and centimos in Spain; leys and banis in Roumania; leva and stotinkis in Bulgaria.

Norway, Sweden, and Denmark employ coins of the same weight and fineness, their names being also alike. Most of the South American States possess a standard coin, equal in weight and fineness to the silver 5-fr. piece, generally termed a "peso." In Hayti the corresponding coin is a "gourde."

Every denomination of English money is current in all British colonies. The exchange value of the moneys of those countries indicated by a * is determined by the rate of exchange for the day, and may be taken as approximately that given in the last column. The rate given in the daily papers generally represents the number of the standard coins

(those printed in italics) that are equivalent to one sovereign. The Spanish rate is given in terms of the old dollar (=2 escudos). The value of other silver coins is approximately determined by the market value of silver, and may be found in the column headed "Intrinsic Value with Silver at per Troy Ounce." The exchange value of the rupee depends on the rate for "India Council Bills." In "bimetallic" countries pure gold is generally taken as being worth 15 $\frac{1}{2}$ times its weight of pure silver. This portion corresponds to giving standard silver a constant value of 60 $\frac{1}{2}$ d. See last column of table.

TABLE SHOWING SUMS PAYABLE IN FOREIGN CURRENCIES ON MONEY ORDERS
ISSUED IN UNITED KINGDOM.

VALUE OF ENGLISH MONEY IN

English Money.			Belgium, France, and Algeria, Italy and Switzerland.	Germany and Heligoland.	Holland and Dutch East Indies.	Denmark, Iceland, Norway, and Danish West Indies.	Sweden.	Portugal, Azores, and Madeira.	Egypt.	United States, Canada, and Hawaii.
£	s.	d.	Francs. Cents.	Marks. Pfenn.	Florins. Cents.	Kroner. Ore.	Kroner. Ore.	Reis.	Piastres. Paras.	Dollars. Cents.
0	0	1	0 10	0 8	0 5	0 7	0 7	10	0 16	0 2
0	0	2	0 20	0 17	0 10	0 15	0 15	30	0 32	0 4
0	0	3	0 30	0 25	0 15	0 22	0 22	50	1 8	0 6
0	0	4	0 40	0 34	0 20	0 30	0 30	70	1 25	0 8
0	0	5	0 50	0 42	0 20	0 37	0 37	90	2 1	0 10
0	0	6	0 60	0 51	0 25	0 45	0 45	110	2 17	0 12
0	0	7	0 70	0 59	0 30	0 52	0 52	130	2 33	0 14
0	0	8	0 80	0 68	0 35	0 60	0 60	150	3 10	0 16
0	0	9	0 90	0 76	0 40	0 68	0 68	170	3 26	0 18
0	0	10	1 0	0 85	0 45	0 75	0 75	190	4 2	0 20
0	0	11	1 10	0 93	0 50	0 83	0 83	200	4 18	0 22
0	1	0	1 20	1 2	0 55	0 90	0 90	220	4 35	0 24
0	2	0	2 50	2 4	1 15	1 81	1 81	450	9 30	0 48
0	3	0	3 70	3 6	1 75	2 72	2 72	680	14 25	0 73
0	4	0	5 0	4 8	2 35	3 63	3 62	910	19 20	0 97
0	5	0	6 30	5 10	2 95	4 53	4 53	1,140	24 15	1 21
0	6	0	7 50	6 12	3 55	5 44	5 43	1,370	29 10	1 46
0	7	0	8 80	7 14	4 15	6 35	6 34	1,590	34 5	1 70
0	8	0	10 0	8 16	4 75	7 26	7 24	1,820	39 0	1 94
0	9	0	11 30	9 18	5 35	8 16	8 15	2,050	43 35	2 19
0	10	0	12 60	10 20	5 95	9 7	9 6	2,280	48 20	2 43
0	11	0	13 80	11 22	6 55	9 98	9 96	2,510	53 25	2 67
0	12	0	15 10	12 24	7 15	10 89	10 87	2,740	58 20	2 93
0	13	0	16 30	13 26	7 75	11 79	11 78	2,970	63 15	3 16
0	14	0	17 60	14 28	8 35	12 70	12 68	3,190	68 10	3 40
0	15	0	18 90	15 30	8 95	13 61	13 60	3,420	73 5	3 65
0	16	0	20 10	16 32	9 55	14 52	14 50	3,650	78 0	3 89
0	17	0	21 40	17 34	10 15	15 42	15 40	3,880	82 35	4 12
0	18	0	22 60	18 36	10 75	16 33	16 31	4,110	87 30	4 38
0	19	0	23 90	19 38	11 35	17 24	17 21	4,340	92 25	4 62
1	0	0	25 20	20 40	11 95	18 15	18 12	4,570	97 20	4 87
2	0	0	50 40	40 80	23 90	36 30	36 24	9,140	195 0	9 74
3	0	0	75 60	61 20	35 85	54 45	54 36	13,710	292 20	14 61
4	0	0	100 80	81 60	47 80	72 60	72 48	18,280	390 0	19 48
5	0	0	126 0	102 0	59 75	90 75	90 60	22,850	487 20	24 35
6	0	0	151 20	122 40	71 70	108 90	108 72	27,420	585 0	29 22
7	0	0	176 40	142 80	83 65	127 5	126 84	31,990	682 20	34 9
8	0	0	201 60	163 20	95 60	145 20	144 96	36,560	780 0	38 96
9	0	0	226 80	183 60	107 55	163 35	163 8	41,130	877 20	43 83
10	0	0	252 0	204 0	119 50	181 50	181 20	45,700	975 0	48 70

INDIA.—Amounts of Money Orders, issued in the United Kingdom on India, are paid in Rupees, Annas, and Pies; the Rupee being the standard of value in India. As, however, the value of the Rupee is subject to constant variation, no tables of conversion can be given. All Orders on India are issued in Sterling, and the equivalent in Rupees is settled by the Post-office at Bombay on arrival of the Advice List from London.

TABLE SHOWING SUMS PAYABLE IN ENGLISH MONEY ON MONEY ORDERS ISSUED
IN FOREIGN COUNTRIES, &c.

Belgium and Switzerland and	France, Algeria, and Italy.	Germany and Heligo- land.	Holland and Dutch East Indies.	Denmark, Iceland, Norway, and Danish West Indies.	Sweden.	Portugal, Azores, and Madeira.	Egypt.	United States, Canada, and Hawaii.	English Money.
Francs. Cents.	Francs. Cents.	Marks. Pfen.	Florins. Cents.	Kroner. Ore.	Kroner. Ore.	Reis.	Piastres. Paras.	Dollars. Cents.	£ s. d.
0 11	0 11	0 9	0 6	0 8	0 8	20	0 16	0 3	0 0 1
0 22	0 21	0 18	0 11	0 16	0 16	40	0 32	0 5	0 0 2
0 32	0 32	0 26	0 16	0 23	0 23	60	1 8	0 7	0 0 3
0 43	0 42	0 35	0 21	0 31	0 31	80	1 25	0 9	0 0 4
0 53	0 53	0 43	0 26	0 38	0 38	100	2 1	0 11	0 0 5
0 64	0 63	0 52	0 31	0 46	0 46	120	2 17	0 13	0 0 6
0 74	0 74	0 60	0 36	0 54	0 54	140	2 33	0 15	0 0 7
0 85	0 84	0 69	0 41	0 61	0 61	160	3 10	0 17	0 0 8
0 95	0 95	0 77	0 46	0 69	0 69	180	3 26	0 19	0 0 9
1 6	1 5	0 86	0 51	0 76	0 76	200	4 2	0 21	0 0 10
1 16	1 16	0 94	0 56	0 84	0 84	210	4 18	0 23	0 0 11
1 27	1 26	1 3	0 61	0 91	0 91	230	4 35	0 25	0 1 0
2 53	2 52	2 5	1 22	1 82	1 82	460	9 30	0 49	0 2 0
3 80	3 78	3 8	1 83	2 73	2 72	690	14 25	0 74	0 3 0
5 6	5 4	4 10	2 44	3 64	3 63	920	19 20	0 98	0 4 0
6 33	6 30	5 13	3 4	4 55	4 53	1,150	24 15	1 22	0 5 0
7 59	7 56	6 15	3 65	5 46	5 44	1,380	29 10	1 47	0 6 0
8 86	8 82	7 18	4 26	6 37	6 35	1,600	34 5	1 71	0 7 0
10 12	10 8	8 20	4 87	7 28	7 25	1,830	39 0	1 95	0 8 0
11 39	11 34	9 23	5 48	8 19	8 16	2,060	43 35	2 20	0 9 0
12 65	12 60	10 25	6 8	9 10	9 6	2,290	48 30	2 44	0 10 0
13 92	13 86	11 28	6 69	10 1	9 97	2,520	53 25	2 68	0 11 0
15 18	15 12	12 30	7 30	10 92	10 88	2,750	58 20	2 93	0 12 0
16 45	16 38	13 33	7 91	11 83	11 78	2,980	63 15	3 17	0 13 0
17 71	17 64	14 35	8 52	12 74	12 69	3,200	68 10	3 41	0 14 0
18 98	18 90	15 38	9 12	13 65	13 59	3,430	73 5	3 66	0 15 0
20 24	20 16	16 40	9 73	14 56	14 50	3,660	78 0	3 90	0 16 0
21 51	21 42	17 43	10 34	15 47	15 41	3,890	82 35	4 14	0 17 0
22 77	22 68	18 45	10 95	16 38	16 31	4,120	87 30	4 39	0 18 0
24 4	23 94	19 48	11 56	17 29	17 21	4,350	92 25	4 63	0 19 0
25 30	25 20	20 50	12 16	18 20	18 12	4,570	97 20	4 87	1 0 0
50 60	50 40	41 0	24 32	36 40	36 24	9,140	195 0	9 74	2 0 0
75 90	75 60	61 50	36 48	54 60	54 36	13,710	292 20	14 61	3 0 0
101 20	100 80	82 0	48 64	72 80	72 48	18,280	390 0	19 48	4 0 0
126 50	126 0	102 50	60 80	91 0	90 60	22,850	487 20	24 35	5 0 0
151 80	151 20	123 0	72 96	109 20	108 72	27,420	585 0	29 22	6 0 0
177 10	176 40	143 50	85 12	127 40	126 84	31,990	682 20	34 9	7 0 0
202 40	201 60	164 0	97 28	145 60	144 96	36,560	780 0	38 96	8 0 0
227 70	226 80	184 50	109 44	163 80	163 8	41,130	877 20	43 83	9 0 0
253 0	252 0	205 0	121 60	182 90	181 20	45,700	975 0	48 70	10 0 0

NOTE.—In calculating amounts payable in the United Kingdom, it must be understood that the Foreign
Offices of Exchange reserve to themselves the power of dealing with fractions of a penny as they may deem
most convenient. For example, an Order issued in Denmark for 1 Kroner may be credited to this country
either as 1s. 1d. or 1s. 2d. An Order issued in Switzerland for 53 Francs may be credited either as £2. 1s. 10d.
£2. 1s. 11d.

THE TIME ALL OVER THE WORLD.

WHEN the clock at Greenwich points to Noon, the time at the various places below is as follows :—

	H.	M.		H.	M.
Boston, U.S.....	7	18 a.m.	Copenhagen.....	12	50 p.m.
Dublin	11	35 a.m.	Florence	12	45 p.m.
Edinburgh	11	47 a.m.	Jerusalem	2	21 p.m.
Glasgow	11	43 a.m.	Madras	5	21 p.m.
Lisbon	11	43 a.m.	Malta	12	58 p.m.
Madrid	11	45 a.m.	Melbourne, Australia....	9	40 p.m.
New York, U.S.	7	14 a.m.	Moscow.....	2	30 p.m.
Penzance	11	38 a.m.	Munich.....	12	46 p.m.
Philadelphia, U.S.	6	59 a.m.	Paris	12	9 p.m.
Quebec	7	15 a.m.	Pekin	7	46 p.m.
Adelaide, Australia.....	9	11 p.m.	Prague	12	58 p.m.
Amsterdam	12	19 p.m.	Rome	12	50 p.m.
Athens	1	35 p.m.	Rotterdam	12	18 p.m.
Berlin	12	54 p.m.	St. Petersburg	2	1 p.m.
Berne	12	30 p.m.	Suez	2	10 p.m.
Bombay	4	52 p.m.	Sydney, Australia	10	5 p.m.
Brussels	12	17 p.m.	Stockholm	1	12 p.m.
Calcutta	5	54 p.m.	Stuttgardt	0	37 p.m.
Capetown.....	1	14 p.m.	Vienna	1	6 p.m.
Constantinople	1	56 p.m.			

Hence, by a little calculation, the time for those places at any hour of our day may be ascertained. At places east of London the apparent time is later, and west of London, earlier; for uniformity sake, however, Greenwich time is kept at all railways in Great Britain and Ireland.

TOTAL ANNUAL VALUE OF PROPERTY AND INCOME ASSESSED, 1875-91.

Year.	England.	Scotland.	Ireland.	United Kingdom.	Year.
	£	£	£	£	
1875	481,774,580	53,934,528	35,347,059	571,056,167	1875
1877	480,425,213	54,441,576	35,464,600	570,331,389	1877
1878	486,698,836	55,712,709	35,929,649	578,294,971	1878
1879	485,939,056	55,897,204	36,210,037	578,046,297	1879
1880	485,676,370	55,079,954	36,140,577	576,896,901	1880
1881	493,583,819	55,530,028	36,110,043	585,223,890	1881
1882	507,644,153	57,607,470	36,199,354	601,450,977	1882
1883	516,948,272	59,406,708	36,481,078	612,836,058	1883
1884	530,538,379	61,117,685	36,854,135	628,510,199	1884
1885	533,429,560	61,125,422	36,912,150	631,467,132	1885
1886	533,038,774	60,057,933	36,758,915	629,855,622	1886
1887	535,040,455	57,910,114	36,447,393	629,397,962	1887
1888	542,450,177	57,145,262	36,559,254	636,154,693	1888
1889	550,575,255	57,834,226	36,749,208	645,158,689	1889
1890	572,128,525	60,030,510	37,199,578	669,358,613	1890
1891	597,265,843	63,387,529	37,754,177	698,407,549	1891

STAMPS, TAXES, EXCISE DUTIES, &c.

STAMP DUTIES.

	£	s.	d.
AFFIDAVIT, or Statutory Declaration, except declaration forming part of an application for a patent.....	0	2	6
AGREEMENT, or Memorandum of Agreement, under hand only, not otherwise charged	0	0	6
APPRAISEMENT, or VALUATION of any estate or effects where the amount of the appraisement shall not exceed £5.....	0	0	3
Not exceeding £10	0	0	6
„ 20	0	1	0
„ 30	0	1	6
„ 40	0	2	0
Not exceeding £50.....	0	2	6
„ 100.....	0	5	0
„ 200.....	0	10	0
„ 500.....	0	15	0
Exceeding £500.....	1	0	0
APPRENTICESHIP INDENTURES—On each instrument	0	2	6
[By the Customs and Inland Revenue Act, 1890, there is no longer an <i>ad valorem</i> stamp duty upon an instrument of apprenticeship where there is a premium or consideration.]			
ARMORIAL BEARINGS	1	1	0
If used on any carriage	2	2	0
ARTICLES of clerkship to attorney or solicitor in England or Ireland ..	80	0	0
In Superior Courts, Scotland.....	60	0	0
BANKERS' NOTES payable on demand and re-issuable—Not above £1 ..	0	0	5
Not above £2	0	0	10
Not exceeding £100	0	8	6
BILLS OF EXCHANGE AND PROMISSORY NOTES, of any kind whatsoever except bank notes—Not exceeding £5	0	0	1
Exceeding £5 and not exceeding £10	0	0	2
„ 10 „ 25	0	0	3
„ 25 „ 50	0	0	6
„ 50 „ 75	0	0	9
„ 75 „ 100	0	1	0
Every £100, and also for any fractional part of £100, of such amount	0	1	0
By Stamp Act of 1850 (33 and 34 Vict., c. 97), the distinction between inland and foreign bills of exchange was abolished.			
BILL OF LADING	0	0	6
CERTIFICATE—Of goods, &c., being duly entered inwards	0	4	0
Of birth, marriage, or death (certified copy of)	0	1	0
DRAFT, or Order, or Letter of Credit, for payment of any sum to bearer or order, on demand	0	0	1
CHARTER PARTY	0	0	6
PASSPORT	0	0	6

STAMPS, TAXES, EXCISE DUTIES, ETC.

TRANSFERS.

Where the amount or value of the consideration for the sale does not				£	s.	d.
exceed £5				0	0	6
		and does not	£	s.	d.	
Exceeds £5	exceed £10		0	1	0	
„ 10	„ 15		0	1	6	
„ 15	„ 20		0	2	0	
„ 20	„ 25		0	2	6	
„ 25	„ 50		0	5	0	
„ 50	„ 75		0	7	6	
„ 75	„ 100		0	10	0	
„ 100	„ 125		0	12	6	
				Exceeds £125	and does not	
				exceed £150		0 15 0
				„ 150	„ 175	0 17 6
				„ 175	„ 200	1 0 0
				„ 200	„ 225	1 2 6
				„ 225	„ 250	1 5 0
				„ 250	„ 275	1 7 6
				„ 275	„ 300	1 10 0
				„ 300		
For every £50, and also for any fractional part of £50, of such amount						
or value					0	5 0
Conveyance or Transfer of any kind not described as above					0	10 0
MARRIAGE LICENSE, special, England and Ireland					5	0 0
„ not special					0	10 0
MEDICINE VENDORS, Great Britain					0	5 0
[A separate license is required for each place where sold.]						

PATENT FOR INVENTIONS (LETTERS).

<i>Up to Sealing:—</i>						
On application for provisional protection				1	0	0
On filing complete specification				3	0	0
Or on filing complete specification with first application				4	0	0
<i>Before the end of four years from the date of Patent:—</i>						
On certificate of renewal.....				50	0	0
<i>Before the end of seven years:—</i>						
On certificate of renewal.....				100	0	0
<i>In lieu of the fees of £50 and £100 the following annual fees:—</i>						
Before the expiration of the 4th, 5th, 6th, and 7th years from the						
date of Patent				10	0	0
8th and 9th ditto				15	0	0
10th, 11th, 12th, and 13th ditto				20	0	0
RECEIPT, £2 or upwards (penalty for giving receipt without stamp, £10)				0	0	1

HOUSE DUTY.

<i>On inhabited houses hitherto paying at the rate of 6d. for every 20s. of the annual value:—</i>						
If annual rent does not exceed £40 the rate is reduced to				0	0	2
If annual rent is £40 to £60				0	0	4
<i>On inhabited houses hitherto paying at the rate of 9d.:—</i>						
If annual rent does not exceed £40				0	0	3
If annual rent is £40 to £60				0	0	6

STAMPS, TAXES, EXCISE DUTIES, ETC.

INCOME TAX.

Incomes of £150 per annum (Schedules A C D and E) and upwards are taxed at the rate of 6d. in the £. Farmers in England (Schedule B), 3d. in the £; in Scotland and Ireland, 2½d. in the £.

Exemption and Abatement.—Incomes less than £150 a year are exempt. On incomes amounting to £150 a year and less than £400 a year there is an abatement upon £120 of assessed income.

POWER OF ATTORNEY.

	£	s.	d.
Power of Attorney, &c., receiving prize-money or wages.....	0	1	0
For sale, transfer, or receipt of any of the Government funds not exceeding £20, or dividends not exceeding £10 per annum.....	0	5	0
If for one payment only	0	1	0
In other cases	0	10	0
Proxy to vote at a meeting.....	0	0	1
Power of Attorney of any other kind	0	10	0

AWARDS.

Where the amount or value of the matter in dispute shall not exceed £5	0	0	3
Not exceeding £10	0	0	6
" 20	0	1	0
" 30	0	1	6
" 40	0	2	0
" 50	0	2	6
" 100	0	5	0
" 200	0	10	0
" 500	0	15	0

SERVANTS.

For every male servant, without distinction of age	0	15	0
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VARIOUS LICENSES AND DUTIES.

Dogs of any kind (penalty £5)	0	7	6
Game Licenses, if taken out after 31st July and before 1st November, to expire on the 31st July following	3	0	0
After 31st July, expire 31st October	2	0	0
After 31st October, expire 31st July	2	0	0
Gamekeepers ..	2	0	0
Game Dealer's License	2	0	0
Gun (License to carry)	0	10	0

POSTAL REGULATIONS, SAVINGS BANKS, ETC.

	£	s.	d.
Hawkers and Pedlars, per year.....	2	0	0
House Agents, letting furnished houses above £25 a year	2	0	0
Passenger Vessels, on board which liquors and tobacco are sold, yearly	5	0	0
Pawnbrokers	7	10	0
Plate Dealers selling 2ozs. gold and 3ozs. silver, and upwards	5	15	0
„ „ under that weight	2	6	0
Retailers of Sweets	1	5	0
Retailers of Wine, England and Ireland.....	2	10	0
„ (Grocers) Scotland	2	4	1
Tobacco and Snuff, dealers in	0	5	3
[A separate license is required for each place where sold.]			
Vinegar Makers.....	5	5	0

POSTAL REGULATIONS, SAVINGS BANKS, &c.

RATES OF POSTAGE.

To and from all parts of the United Kingdom, for prepaid letters :—

Not exceeding 1oz.	1d.	Exceeding 6ozs., not exceeding 8ozs.	3d.
Exceeding 1oz., not exceeding 2ozs.	1½d.	„ 8 „ „	10 „ 3½d.
„ 2 „ „	4 „ 2d.	„ 10 „ „	12 „ 4d.
„ 4 „ „	6 „ 2½d.	„ 12 „ „	14 „ 4½d.

and so on at the rate of ½d. for every additional 2ozs.

A letter posted unpaid is chargeable on delivery with double postage, and a letter posted insufficiently paid is chargeable with double the deficiency.

No letter is to exceed one foot six inches in length, nine inches in width, and six inches in depth, unless it be sent to or from a Government Office.

A penny stamp is now issued which can be used either as a postage or receipt stamp.

INLAND BOOK AND CIRCULAR POST.

The Book Post rate is one halfpenny for every 2ozs. or fraction of 2ozs. Every Book Packet must be posted either without a cover or in a cover entirely open at the ends. No Book Packet may exceed 5lbs. in weight, or one foot six inches in length, nine inches in width, and six inches in depth, unless it be sent to or from a Government Office.

Any Book Packet which is found to contain a letter, or communication of the nature of a letter (not being a circular letter), or not wholly printed, or any enclosure sealed or in any way closed against inspection, or any other enclosure not allowed by the regulations of the Book Post, will be treated as a letter, and charged double the deficiency of the letter postage.

POSTAL REGULATIONS, SAVINGS BANKS, ETC.

Circular Letters posted in covers entirely open at both ends, the whole or greater part of which are printed, engraved, lithographed, or type written, and which, according to the internal evidence, are being sent to several persons in identical terms, may be sent at book rate.

EXPRESS DELIVERY SERVICES.

Letters and Parcels are now accepted for Express Delivery at a large number of post-offices. For fees and conditions, *see* the "Postal Guide."

POSTAGE ON INLAND REGISTERED NEWSPAPERS.

Prepaid Rate.—On each Registered Newspaper, whether posted singly or in a packet, the postage when prepaid is one halfpenny; but a packet containing two or more Registered Newspapers is not chargeable with a higher rate of postage than would be chargeable on a Book Packet of the same weight—viz., one halfpenny for every 2ozs. or fraction of 2ozs.

POST CARDS.

Inland Post Cards are sold at the following prices:—Stout Cards, five for 3d.; ten for 6d. Thin Cards, ten for 5½d.

Reply Stout Cards are sold at ten for a shilling. Reply Thin Cards at ten for 11d. Smaller numbers in proportion.

Foreign Post Cards are sold at the rates of 1d., 1½d., and 2d. each.

Foreign Reply Post Cards are sold at 2d., 3d., and 4d. each.

POST-OFFICE TELEGRAMS.

The charge for Telegrams throughout the United Kingdom is 6d. for the first twelve words, which must include addresses of sender and receiver. It is not, however, necessary to telegraph sender's address; and by this omission an average of seven words may be sent for 6d.

Free addresses are abolished; numbers in addresses are counted as one word. After the first twelve words the charge is one halfpenny a word.

For the rates charged for Foreign Telegrams, *see* the "Post-office Guide," published quarterly.

MONEY ORDERS FOR THE UNITED KINGDOM.

Money Orders are granted in the United Kingdom at the following rates:—

For a sum not exceeding £1	2d.
For a sum exceeding £1 and not exceeding £2	3d.
" " £2 " " £4	4d.
" " £4 " " £7	5d.
" " £7 " " £10	6d.

POSTAL REGULATIONS, SAVINGS BANKS, ETC.

TELEGRAPHIC MONEY ORDERS.

Sums not exceeding £1.....	4d.
„ „ £2.....	6d.
„ „ £4.....	8d.
„ „ £7.....	10d.
„ „ £10.....	1s.

In addition to the above, the person at whose request the Telegraphic Money Order is issued will be required to pay the ordinary telegraphic rates.

POSTAL ORDERS.

Postal Orders are issued at the following rates :—On those for 1/- and 1/6 the charge is $\frac{1}{2}$ d.; for 2/-, 2/6, 3/-, 3/6, 4/-, 4/6, 5/-, 7/6, 10/-, 10/6, the charge is 1d.; for 15/- and 20/-, $1\frac{1}{2}$ d.

INLAND PARCEL POST.—POSTING OF PARCELS.

Parcels must be handed in at a post-office counter, and must not be dropped into a letter box. If a parcel marked “Parcel Post” is not posted in accordance with this regulation it will be charged on delivery with a fine of 1d.

All Parcels must be prepaid by stamps affixed by the senders, and the rates of postage are as follows :—

						s.	d.
For a Parcel not exceeding 1lb. in weight						0	3
For a Parcel exceeding 1lb. in weight and not exceeding 2lbs.						0	$4\frac{1}{2}$
„ „ 2lbs.	„	„	„	„	3lbs.	0	6
„ „ 3lbs.	„	„	„	„	4lbs.	0	$7\frac{1}{2}$
„ „ 4lbs.	„	„	„	„	5lbs.	0	9
„ „ 5lbs.	„	„	„	„	6lbs.	0	$10\frac{1}{2}$
„ „ 6lbs.	„	„	„	„	7lbs.	1	0
„ „ 7lbs.	„	„	„	„	8lbs.	1	$1\frac{1}{2}$
„ „ 8lbs.	„	„	„	„	9lbs.	1	3
„ „ 9lbs.	„	„	„	„	10lbs.	1	$4\frac{1}{2}$
„ „ 10lbs.	„	„	„	„	11lbs.	1	6

LIMITATION OF WEIGHT.

No Parcel exceeding 11lbs. in weight can be received for transmission.

LIMITATION OF SIZE.

No Parcel may exceed 3ft. 6in. in length, or 6ft. in length and girth combined. Thus, a Parcel 3ft. 6in. in length may not measure more than 2ft. 6in. in girth at its widest part; but a Parcel of shorter length, say 3ft., or 2ft. 8in., may measure respectively 3ft. or 3ft. 4in. in its widest girth.

POSTAL REGULATIONS, SAVINGS BANKS, ETC.

INLAND PATTERN AND SAMPLE POST.

Trade Patterns and Samples of Merchandise may be sent between places in the United Kingdom at the following rates of postage:—

For a Packet not exceeding 2ozs.	$\frac{1}{2}$ d.
„ „ „ 4ozs.	1d.
„ „ more than 4ozs. but not exceeding 6ozs.....	$1\frac{1}{2}$ d.
„ „ „ 6ozs. „ „ 8ozs.....	2d.

No Packet to exceed 8ozs. in weight. Limits of dimension are—12ft. by 8ft. 4in. If either of these conditions be infringed the Packet will not be forwarded, but returned to the sender; similar conditions as to insufficiently paid postage obtain in connection with the above.

INLAND REGISTRATION AND COMPENSATION.

The Postmaster-General will (not in consequence of any legal liability, but voluntarily, and as an act of grace), subject to the rules hereinafter mentioned, give compensation up to a maximum limit of £25 for the loss and damage of Inland Registered Postal Packets of all kinds upon prepayment of a fee in addition to the postage. This fee either consists of or includes in each case the ordinary registration fee of 2d.; and the scale of fees and the respective limits of compensation are as follows:—Fee, 2d., Limit of Compensation, £5; 3d., £10; 4d., £15; 5d., £20; 6d., £25.

POST-OFFICE SAVINGS BANKS.

No deposit of less than a shilling is received, nor any pence, and not more than £30 in one year. No further deposit is allowed when the amount standing in depositor's name exceeds £150, exclusive of interest. Interest is allowed at the rate of $2\frac{1}{2}$ per cent (or sixpence in the pound) per annum—that is at the rate of one halfpenny per pound per month. When the principal and interest reach to £200, no further interest is paid until the sum at the depositor's credit is reduced below that amount.

At every post-office in the United Kingdom forms for making small deposits are now issued gratuitously. Each form has twelve divisions, in each of which a penny postage stamp can be placed; when the twelve are filled in it is received at any Post-office Savings Bank as a shilling.

Any person can now invest, at any Post-office Savings Bank, small sums in Government Stock; not less than £10, and not more than £100, in any one year. The amount held by any one investor must not exceed £300.

BANK HOLIDAYS. LAW SITTINGS. ECLIPSES.

REGISTERS OF BIRTHS, MARRIAGES, AND DEATHS.

These are now kept at Somerset House, and may be searched on payment of the fee of one shilling. If a certified copy of any entry be required, the charge for that, in addition to the shilling for the search, is two shillings and sevenpence, which includes a penny for stamp duty. The registers contain an entry of births, deaths, and marriages since 1st July, 1837.

BANK HOLIDAYS, 1893.

ENGLAND.

Easter Monday.....	April	3
Whit Monday	May	22
First Monday in August.....	August	7
Boxing Day (Tuesday)	December	26

SCOTLAND.

New Year's Day	January	1
Good Friday.....	March	31
First Monday in May.....	May	1
First Monday in August	August	7
Christmas Day	December	25

LAW SITTINGS, 1893.

	Begin.		End.
Hilary Sittings	January 11		March 29.
Easter „	April 11		May 19.
Trinity „	May 30		Aug. 12.
Michael. „	October 24		Dec. 21.

ECLIPSES IN 1893.

In the year 1893 there will be two eclipses, both of the sun :—

- 1.—April 16th, a total eclipse of the sun, invisible at Greenwich.
- 2.—October 9th, an annular eclipse of the sun, invisible at Greenwich.

RAILWAY ACCIDENTS.

PROPORTION OF PASSENGERS KILLED AND INJURED FROM CAUSES BEYOND THEIR OWN CONTROL.

THE FOLLOWING STATEMENT SHOWS THE PROPORTION OF PASSENGERS RETURNED AS KILLED AND INJURED FROM CAUSES BEYOND THEIR OWN CONTROL, IN PASSENGER-JOURNEYS, FOR THE YEARS 1874 TO 1891:—

YEAR.	Number of Passengers Killed and Injured from causes beyond their own control, from Accidents to Trains.		Number of Passenger Journeys (exclusive of Journeys by Season-ticket Holders).	Proportion returned as Killed and Injured (from causes beyond their own control) to number carried.	
	Killed.	Injured.		Killed.	Injured.
1874.....	86	1,613	477,840,411	1 in 5,556,284	1 in 296,243
1875.....	17	1,212	506,975,234	1 in 29,882,073	1 in 418,296
1876.....	38	1,279	538,287,295	1 in 14,165,455	1 in 420,865
1877.....	11	664	551,593,654	1 in 50,144,876	1 in 830,713
1878.....	24	1,173	565,024,455	1 in 23,542,685	1 in 481,692
1879.....	*75	602	562,732,890	1 in 7,503,105	1 in 934,772
1880.....	29	904	603,835,025	1 in 20,823,586	1 in 668,013
1881.....	23	987	622,160,000	1 in 27,050,435	1 in 630,354
1882.....	18	803	654,838,295	1 in 36,379,905	1 in 815,489
1883.....	11	662	683,718,137	1 in 62,156,194	1 in 1,032,806
1884.....	31	864	694,991,860	1 in 22,419,092	1 in 804,338
1885.....	6	436	697,213,031	1 in 116,202,171	1 in 1,599,112
1886.....	8	615	725,584,390	1 in 90,698,049	1 in 1,179,812
1887.....	25	538	733,670,000	1 in 29,346,800	1 in 1,363,699
1888.....	11	594	742,830,000	1 in 67,530,000	1 in 1,250,555
1889.....	+88	+1,016	775,183,073	1 in 8,808,875	1 in 762,975
1890.....	18	496	817,744,046	1 in 45,430,224	1 in 1,648,677
1891.....	5	875	845,463,668	1 in 169,092,733	1 in 966,244

* Including 73 persons lost in the Tay Bridge disaster in the year 1879.

+ Including 80 killed and 262 injured in a collision near Armagh.

BAROMETER INSTRUCTIONS.

COMPILED BY THE LATE ADMIRAL FITZROY, F.R.S.

THE barometer should be set regularly by a duly-authorised person about sunrise, noon, and sunset.

The words on scales of barometers should not be so much regarded for weather indications as the RISING or FALLING of the mercury; for if it stand at CHANGEABLE (29·50) and then rise towards FAIR (30·00) it presages a change of wind or weather, though not so great as if the mercury had risen higher; and, on the contrary, if the mercury stand above FAIR and then fall it presages a change, though not to so great a degree as if it had stood lower; beside which, the direction and force of wind are not in any way noticed.

It is not from the point at which the mercury may stand that we are alone to form a judgment of the state of the weather, but from its RISING or FALLING; and from the movements of immediately PRECEDING days as well as hours, keeping in mind effects of change of DIRECTION, and dryness or moisture, as well as alteration of force or strength of wind.

It should always be remembered that the state of the air FORETELLS COMING weather rather than shows the weather that is PRESENT—(an invaluable fact too often overlooked)—that the longer the time between the signs and the change foretold by them the longer such altered weather will last; and, on the contrary, the less the time between a warning and a change the shorter will be the continuance of such foretold weather.

If the barometer has been about its ordinary height, say near 30 inches at the sea-level, and is steady on rising, while the thermometer falls and dampness becomes less, north-westerly, northerly, north-easterly wind, or less wind, less rain or snow may be expected.

On the contrary, if a fall takes place with a rising thermometer and increased dampness, wind and rain may be expected from the south-eastward, southward, or south-westward. A fall with low thermometer foretells snow.

When the barometer is rather below its ordinary height, say down to near $29\frac{1}{2}$ inches (at sea-level), a rise foretells less wind, or a change in its direction towards the northward, or less wet; but when it has been very low, about 29 inches, the first rising usually precedes or indicates strong wind—at times heavy squalls—from the north-westward, northward, or north-eastward, AFTER which violence a gradually rising glass foretells improving weather; if the thermometer falls, but if the warmth continues, probably the wind will back (shift against the sun's course), and more southerly or south-westerly wind will follow, especially if the barometer rise is sudden.

The most dangerous shifts of wind, or the HEAVIEST northerly gales, happen soon after the barometer first rises from a very low point; or if the wind veers GRADUALLY, at some time afterwards.

BAROMETER INSTRUCTIONS.

Indications of approaching change of weather and the direction and force of winds are shown less by the height of the barometer than by its falling or rising. Nevertheless, a height of more than 30 (30.00) inches (at the level of the sea) is indicative of fine weather and MODERATE winds, except from east to north, OCCASIONALLY.

A rapid rise of the barometer indicates unsettled weather, a slow movement the contrary; as likewise a STEADY barometer, when continued and with dryness, foretells very fine weather.

A rapid and considerable fall is a sign of stormy weather, and rain or snow. Alternate rising and sinking indicates unsettled or threatening weather.

The greatest depressions of the barometer are with gales from S.E., S., or S.W.; the greatest deviations, with wind from N.W., N., or N.E., or with calm.

A sudden fall of the barometer, with a westerly wind, is sometimes followed by a violent storm from N.W., N., or N.E.

If a gale sets in from the E. or S.E., and the wind veers by the south, the barometer will continue falling until the wind is near a marked change, when a lull MAY occur; after which the gale will soon be renewed, perhaps suddenly and violently, and the veering of the wind towards the N.W., N., or N.E. will be indicated by a rising of the barometer, with a fall of the thermometer.

After very warm and calm weather a storm or squall, with rain, may follow; likewise at any time when the atmosphere is HEATED much above the USUAL temperature of the season.

To know the state of the air not only the barometer AND THERMOMETER, but appearances of the sky should be vigilantly watched.

 SIGNS OF WEATHER.

WHETHER clear or cloudy, a rosy sky at sunset presages fine weather; a red sky in the morning, bad weather, or much wind, perhaps rain; a grey sky in the morning, fine weather; a high dawn, wind; a low dawn, fair weather.*

Soft-looking or delicate clouds foretell fine weather, with moderate or light breezes; hard-edged, oily-looking clouds, wind. A dark, gloomy blue sky is windy, but a light, bright blue sky indicates fine weather. Generally, the softer the clouds look, the less wind (but perhaps more rain) may be expected; and the harder, more "greasy," rolled, tufted, or ragged, the stronger the coming wind will prove. Also a bright yellow sky at sunset presages wind; a pale yellow, wet; and thus, by the prevalence of red, yellow, or grey tints, the coming weather may be foretold very nearly—indeed, if aided by instruments, almost exactly.

* A high dawn is when the first indications of daylight are seen above a bank of clouds. A low dawn is when the day breaks on or near the horizon, the first streaks of light being very low down.

BAROMETER INSTRUCTIONS.

Small inky-looking clouds foretell rain ; light scud clouds driving across heavy masses show wind and rain, but if alone may indicate wind only.

High upper clouds crossing the sun, moon, or stars in a direction different from that of the lower clouds, or the wind then felt below, foretell a change of wind.

After fine, clear weather, the first signs in the sky of a coming change are usually light streaks, curls, wisps or mottled patches of white distant clouds, which increase, and are followed by an overcasting of murky vapour that grows into cloudiness. This appearance, more or less oily or watery as wind or rain will prevail, is an infallible sign.

Light, delicate, quiet tints or colours, with soft, undefined forms of clouds, indicate and accompany fine weather ; but gaudy or unusual hues, with hard, definitely-outlined clouds, foretell rain, and probably strong wind.

When sea-birds fly out early and far to seaward, moderate wind and fair weather may be expected. When they hang about the land, or over it, sometimes flying inland, expect a strong wind, with stormy weather. As many creatures beside birds are affected by the approach of rain or wind, such indications should not be slighted by an observer who wishes to foresee weather.

Remarkable clearness of atmosphere near the horizon, distant objects such as hills unusually visible, or raised (by refraction),† and what is called a “good HEARING day,” may be mentioned among signs of wet, if not wind, to be expected.

More than usual twinkling of the stars, indistinctness or apparent multiplication of the moon’s horns, haloes, “wind-dogs” (fragments or pieces of rainbows, sometimes called “wind-galls”) seen on detached clouds, and the rainbow, are more or less significant of increasing wind, if not approaching rain with or without wind.

Lastly, the dryness or dampness of the air, and its temperature (for the season), should ALWAYS be considered WITH OTHER indications of change or continuance of wind and weather.

On barometer scales the following contractions may be useful :—

RISE
FOR
N.E.LY
(N.W.-N.-E.)
DRY
OR
LESS
WIND.

—
EXCEPT
WET FROM
N.E.D.

FALL
FOR
S.W.LY
(S.E.-S.-W.)
WET
OR
MORE
WIND.

—
EXCEPT
WET FROM
N.E.D.

When the wind shifts against the sun,
Trust it not, for back it will run.

FIRST rise after very low
Indicates a stronger blow.

Long foretold—long last ;
Short notice—soon past.

† Much refraction is a sign of easterly wind.

METEOROLOGICAL TABLE.

This Table is used to suggest what kind of weather will probably follow the changes of the Moon.

Time of New or of Full Moon, or of entering the First or Last Quarter.	Weather likely to follow during the Quarter.	
	IN SUMMER.	IN WINTER.
12 at Noon to 2 Afternoon.....	Very rainy	Snow or rain.
2 Afternoon to 4 "	Changeable	Fair and mild.
4 " to 6 "	Fair	Fair.
6 " to 10 "	(Fair, if wind North-West	Fair, frosty, if North or North-East.
10 " to 12 Midnight	(Rainy, if South or South-West	Rain or snow, if South or South-West.
12 Midnight to 2 Morning	Fair	Fair and frosty.
2 Morning to 4 "	Fair	Hard frost, unless South or West.
4 " to 6 "	Cold, with showers	Snow and stormy.
6 " to 8 "	Rain	Snow and stormy.
8 " to 10 "	Wind and rain	Stormy.
10 " to 12 Noon	Changeable	{ Cold rain, if wind West. Snow, if East.
	Frequent showers	Cold, with high wind.

REMARKS.

The nearer the time of the Moon's entrance, at full, change, and quarters, is to midnight, that is, within two hours before and after midnight, the fairer the weather will be; but the nearer to noon, the less fair. Also the Moon's entrance, at full, change, and quarters, during six of the afternoon hours, namely, from four to ten, may be followed by fair weather; but this is mostly dependent upon the wind. The same entrance during all the hours after midnight is, with the exception of the two first, unfavourable to fair weather.

MONTHLY METEOROLOGICAL TABLE FOR THE YEAR ENDING SEPTEMBER 30, 1892.

(From Official Sources.)

ROYAL OBSERVATORY, GREENWICH.—HEIGHT OF STATION ABOVE SEA LEVEL, 159 FEET.

Year 1891-92.	Month.	PRESSURE OF ATMOSPHERE IN MONTH.		TEMPERATURE OF AIR IN MONTH.					MEAN TEMPERATURE.		MEAN READING OF THERMOMETER.		RAIN.	
		Mean.	Range.	Highest.	Lowest.	Range.	MEAN		Air.	Dew Point.	Maximum in Rays of Sun.	Minimum on Grass.	Number of days it fell.	In.
							of all Highest.	of all Lowest.						
								Daily Range.			Deg.	Deg.	Days.	In.
1891.														
	October.....	29.608	1.567	68.3	29.9	38.4	Deg. 58.8	Deg. 44.0	Deg. 50.9	Deg. 46.2	Deg. 94.4	Deg. 37.8	20	4.32
	November ..	29.670	2.133	57.4	29.8	27.6	Deg. 48.2	Deg. 37.7	Deg. 43.1	Deg. 39.9	Deg. 64.1	Deg. 32.3	15	2.01
	December....	29.804	1.559	57.0	17.3	39.7	Deg. 46.5	Deg. 35.4	Deg. 41.1	Deg. 37.1	Deg. 57.6	Deg. 30.0	17	2.67
1892														
	January	29.687	1.172	51.6	22.3	29.3	Deg. 40.8	Deg. 31.6	Deg. 36.5	Deg. 32.4	Deg. 51.3	Deg. 26.5	11	0.38
	February	29.621	1.355	53.5	18.8	34.7	Deg. 44.4	Deg. 33.7	Deg. 38.8	Deg. 33.7	Deg. 66.9	Deg. 29.4	19	1.69
	March	29.842	1.300	60.5	22.3	38.2	Deg. 45.1	Deg. 30.8	Deg. 37.3	Deg. 30.2	Deg. 81.6	Deg. 26.8	12	1.09
	April	29.828	0.992	75.3	26.7	48.6	Deg. 59.0	Deg. 36.0	Deg. 46.9	Deg. 36.8	Deg. 106.4	Deg. 30.1	10	1.42
	May	29.821	0.748	85.1	28.7	56.4	Deg. 67.0	Deg. 43.9	Deg. 55.2	Deg. 44.3	Deg. 116.7	Deg. 37.1	11	1.66
	June	29.828	0.916	85.9	37.2	48.7	Deg. 70.5	Deg. 47.9	Deg. 58.1	Deg. 49.4	Deg. 123.9	Deg. 42.4	14	2.27
	July	29.842	0.772	82.4	47.0	35.4	Deg. 70.9	Deg. 51.2	Deg. 59.6	Deg. 51.8	Deg. 112.1	Deg. 45.6	12	1.54
	August	29.757	0.717	84.3	43.8	40.5	Deg. 73.6	Deg. 52.6	Deg. 61.7	Deg. 54.1	Deg. 124.0	Deg. 45.0	16	3.03
	September ..	29.811	0.885	74.6	37.2	37.4	Deg. 66.7	Deg. 47.9	Deg. 56.3	Deg. 50.5	Deg. 109.6	Deg. 40.4	14	2.01

MONTHLY METEOROLOGICAL TABLE FOR THE YEAR ENDING SEPTEMBER 30, 1892.

(From Official Sources.)

THE OBSERVATORY, LIVERPOOL.—HEIGHT OF STATION ABOVE SEA LEVEL, 197 FEET.

YEAR 1891-92.	Month.	PRESSURE OF ATMOSPHERE IN MONTH.		TEMPERATURE OF AIR IN MONTH.					MEAN TEMPERATURE.		MEAN READING OF THERMOMETER.		RAIN.	
		Mean.	Range.	Highest.	Lowest.	Range.	MEAN		Air.	Dew Point.	Maximum in Rays of Sun.	Minimum on Grass.	Number of days it fell.	Amount Collected.
							of all Highest.	of all Lowest.						
1891.		In.	In.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	* Deg.	* Deg.	Days.	In.
	October.....	29.456	1.977	61.5	35.3	26.2	54.9	44.1	43.4	43.4	102.2	36.8	22	3.00
	November ..	29.581	2.298	56.1	30.8	25.3	47.1	38.7	42.4	37.8	67.6	32.1	20	3.13
	December....	29.628	1.559	58.5	21.0	37.5	45.1	35.5	40.1	35.3	63.8	29.1	21	3.88
1892.														
	January	29.598	1.208	51.9	22.2	29.7	40.7	33.5	37.0	32.9	62.3	26.5	24	2.86
	February	29.550	1.555	52.9	21.2	31.7	42.8	35.7	38.7	35.4	80.3	28.6	17	1.77
	March	29.818	1.475	61.1	27.6	33.5	42.4	32.8	37.0	30.4	97.3	25.2	12	1.48
	April	29.807	0.958	67.6	29.8	37.8	53.7	38.6	44.8	31.8	117.0	29.4	13	1.53
	May	29.743	0.894	75.9	35.5	40.4	59.8	46.1	51.5	42.3	117.9	37.4	18	2.19
	June	29.754	0.937	78.9	43.0	35.9	63.1	50.3	54.9	46.7	124.2	41.0	16	3.76
	July	29.794	0.940	73.9	49.2	24.7	63.4	52.0	56.0	48.8	122.2	44.7	13	2.14
	August	29.657	0.939	73.1	44.8	28.3	64.7	54.2	58.0	51.9	118.0	46.4	17	3.55
	September ..	29.697	0.956	66.0	43.3	22.7	59.4	50.1	53.7	48.8	108.6	40.8	23	3.08

* The Mean temperature inserted in these two columns is taken from the Returns of Stonyhurst College, Lancashire, as they were not supplied by Liverpool. The height of station above sea level is 363 feet.

MONTHLY METEOROLOGICAL TABLE FOR THE YEAR ENDING SEPTEMBER 30, 1892.

(From Official Sources.)

THE OBSERVATORY, CARLISLE, SPITAL (CUMBERLAND).—HEIGHT OF STATION ABOVE SEA LEVEL, 114 FEET.

YEAR 1891-92.	Month.	PRESSURE OF ATMOSPHERE IN MONTH.		TEMPERATURE OF AIR IN MONTH.						MEAN TEMPERATURE.		MEAN READING OF THERMOMETER.		RAIN.	
		Mean.	Range.	Highest.	Lowest.	Range.	MEAN		Dew Point.	Air.	Dew Point.	Maximum in days of Sun.	Minimum on Grass.	Number of days it fell.	In.
							of all Highest.	of all Lowest.							
	1891.	In.	In.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Days.	In.
	October.....	29.490	2.208	61.4	32.2	29.2	55.7	45.3	10.4	50.0	43.4	76.3	37.3	17	3.00
	November....	29.630	2.292	55.2	27.0	28.2	47.1	39.5	7.6	43.0	37.7	59.7	31.6	16	2.66
	December....	29.640	1.823	58.0	22.2	35.8	45.1	38.3	6.8	40.5	37.7	56.9	30.7	18	5.48
	1892.														
	January.....	29.624	1.200	51.8	16.0	35.8	40.9	33.7	7.2	36.9	34.6	53.9	26.1	19	2.18
	February	29.592	1.806	54.8	12.2	52.6	45.3	35.8	9.5	39.8	36.1	67.8	28.4	19	1.68
	March.....	29.884	1.338	65.8	18.4	47.4	45.7	31.9	13.8	39.3	32.6	79.1	25.0	10	0.86
	April.....	29.860	1.088	68.8	21.8	47.0	55.7	37.2	18.5	45.6	38.9	94.5	30.5	10	1.18
	May.	29.784	1.038	73.2	33.4	39.8	61.6	47.0	14.6	52.8	47.8	101.8	39.3	19	3.94
	June	29.801	1.036	80.2	37.4	42.8	64.9	51.8	13.1	56.6	50.8	92.1	43.3	18	3.12
	July.	29.847	1.022	75.8	45.0	30.8	67.6	54.4	13.2	58.8	54.1	104.3	46.7	11	1.94
	August	29.700	1.072	80.6	38.4	42.2	67.8	53.8	14.0	59.1	53.8	99.7	46.1	20	6.72
	September....	29.699	0.988	67.0	37.0	30.0	60.6	50.3	10.3	54.7	48.6	82.5	42.5	21	6.16

REMARKS ON THE WEATHER.

OCTOBER, 1891.—During this month the weather was mild and very wet, and high winds were frequent. For a few days together the temperature of the air was a little above the average, and for some days a little below, the last two days being very cold. Atmospheric pressure low from the 6th to the 26th, particularly so on the 13th, 21st, and 22nd; the lowest readings were at the northern stations on the 13th, and were below 28·5 inches. There was a heavy gale of wind on the 13th and 14th, trees were blown down, many ships wrecked, and some lives lost. The fall of rain was heavy, causing floods in many places and great inconvenience, putting a stop to the sowing of wheat on heavy lands.

NOVEMBER.—Cold weather during the first week, and from the 23rd foggy in many places, rainfall being below the average at most stations. From the 11th to the 20th temperature of the air was above its average, and on all other days generally below. Till the 8th the atmospheric pressure was above its average, generally below from the 9th, and particularly so on the 11th. At Blackheath at 11 a.m. the reading on this day was 28·27 inches, a severe gale followed, continuing for seven or eight hours, uprooting many trees. Fall of rain was less than the average, fog was prevalent, particularly in the midland counties.

DECEMBER.—During the first half of this month the weather was wet and mild. Till the 16th and from the 26th the temperature of the air was above its average, and below it from the 17th to the 25th; and from the 19th to the 25th the average deficiency of mean daily temperature was $13\frac{1}{2}^{\circ}$ for seven days. Till the 16th and from the 25th the atmospheric pressure was generally below its average, and on the 10th and 13th particularly so. From the 8th to the 13th there was a succession of gales, being most severe on the 10th, when many trees were uprooted. The rainfall was above the average, greatly checking agricultural operations, and causing all low-lying lands to be very wet.

JANUARY, 1892.—During this month weather was dry and very cold, with frequent N.E. and N.W. winds, and snow till the 20th, and at the end of the month it was mild with strong S.W. wind. On nearly every day till the 21st the temperature of the air was below its average, with several nights of severe frost; with the exception of two days from the 22nd the mean temperature was above the average. With the exception of the 2nd, 3rd, and 4th, the atmospheric pressure was low, and on the 6th, 7th, 8th, 9th, 14th, 15th, and 16th days particularly so; the readings of the barometer being above their average from the 23rd. Snow fell frequently between the 6th and 20th, and the rainfall was less than the average.

FEBRUARY.—Dry, dull, and moderately warm till the 11th, then cold, and exceptionally severe from the 16th to the 20th; then for a few days warm, and at the end of the month cold. Till the 11th the temperature of the air was a

REMARKS ON THE WEATHER.

little above the average; on the 12th a cold period set in, and on the 16th, 17th, 18th, and 19th was particularly severe. On the morning of the 17th the temperature was very low generally, and at many places in the north below zero. From the 9th to the 14th and on the 26th and 27th the atmospheric pressure was above its average, below on all other days, and from the 15th to the 21st particularly so. Rain was generally less than the average. From the 14th to the 20th snow fell every day, and in Cornwall and Devonshire on the 19th trains were stopped and the telegraph service much deranged, drifts of snow in some places were so deep that two engines coupled together were employed and frequently brought to a standstill. From the 15th to the 20th the gales from the E. and N. caused many casualties and loss of life. Vegetation was very backward at the end of the month.

MARCH.—Throughout this month the weather was dry, during the first half keen frost and bitter winds prevailed, from the 16th to the 19th milder, and on the 20th the cold weather was renewed and continued till the end of the month excepting that the 26th and 27th were moderately mild. Till the 15th the temperature of the air was constantly below the average, and low temperatures were general in London and all parts of the country. The temperature was mild from the 16th to the 19th, and in contrast to the preceding cold weather the air was very pleasant; a moderately cold period set in on the 20th, the month ending with three very cold days and cold winds. From the 2nd to the 6th, from the 17th to the 25th, and from the 29th the pressure of the atmosphere was above its average. Snowstorms all over the country were general on the 9th and 10th, the fall of rain everywhere was small, the keen N.E. winds and the cold days during the first half of the month and at the close completely kept back all vegetation.

APRIL.—In this month the weather was generally warm by day, dry, but cold at night. Till the 11th the temperature of the air was above its average, on the 4th, 5th, 6th, and 7th particularly so. The high day temperature exceeded 70° at some stations on the 4th and 5th, a very high value for April. On the 12th a sudden change to cold set in, and continued to the 20th. Snow fell at several places between the 13th and 17th, the temperature of the air being above the average from the 21st to the 24th, then to the end of the month below. Till the 5th and from the 18th to the 24th the atmospheric pressure was above its average, and on all other days below. The fall of rain was small, with prevalent N. and E. winds. The month was distinguished by being sunny and fine at extreme southern stations, and by an absence of sun with much frost at extreme northern stations.

MAY.—Weather somewhat changeable, very cold at the beginning, then moderately warm, and at the end hot and dry, when some rain fell. Till the 7th the temperature of the air was below its average, particularly on the 5th and 6th, and above from the 8th to the end of the month, from the 25th particularly so. On the 31st the high day temperature exceeded 80° between Whitchurch and Rugby at all stations, and a severe thunderstorm took place, doing damage in many places. From the 5th to the 23rd, and on the 29th and 30th, the atmospheric

REMARKS ON THE WEATHER.

pressure was generally above the average, and on other days below. At southern stations the fall of rain was below the average, but at midland and northern stations generally above.

JUNE.—On the whole the weather was pleasant, but variable. Till the 11th the temperature of the air was above its average; on the 10th it was as much as $10\cdot4^{\circ}$ in excess; a sudden cold set in on the 12th, and the mean daily temperature was as much as $10\cdot4^{\circ}$ below the average on the 14th. At Blackheath the temperature was $85\cdot7^{\circ}$ on the 10th, and on the morning of the 15th it was 38° , being $47\cdot7^{\circ}$ of lower temperature, in some places this great change was larger; till the end of the month the temperature continued below the average, with the exception of the 26th, 27th, and 28th. Till the 3rd the atmospheric pressure was below, and generally from the 16th. The rainfall was generally above the average. Thunderstorms were general over England on the 1st and 28th, at some places with heavy falls of rain, and on the 28th the fall of rain exceeded two inches at some stations. The hay harvest was very light, in consequence of the dry spring.

JULY.—The weather was cold and showery during the first part, and dry at the end of the month. On every day the temperature of the air was below the average excepting the 3rd, 4th, 7th, and 31st, and from the 14th to the 21st particularly so. Till the 20th, the atmospheric pressure was below the average, and from the 21st above. At most stations the fall of rain was less than the average. S.W. wind prevalent in the early part of the month, and after the 20th N.E. wind prevailed. Very little thunder during the month. Hay crop generally light.

AUGUST.—Weather was variable, but changeable at different parts of the country. It was moderately warm with frequent rain in the south; in the first fortnight it was generally bright, and cold, wet, and unsettled over the whole country in the last week. About London the temperature of the air was above the average generally from the 14th to the 25th, and on all other days generally below. Till the 12th the atmospheric pressure was above the average, and below, with the exception of the 16th, 20th, and 21st, from the 13th day, and at the end of the month particularly so. At nearly all the stations the fall of rain was above the average. Wind mostly from the S.W.

SEPTEMBER.—During the first week the weather was dull and wet, then dry, with occasional bright sun till the 19th; from the 20th generally wet and dull. Till the 9th the temperature of the air was below its average, from the 14th to the 18th, and from the 28th, and above from the 10th to the 13th, and from the 19th to the 27th. With the exception of a very few days the atmospheric pressure was below the average all the month. The rainfall was somewhat above the average. S.W. wind was prevalent. The month was not favourable for harvest work.

THE USE OF OIL ON ROUGH SEAS.

FOR the use of oil on rough seas the following methods will be of great service:—

1. On free waves, that is, waves in deep water, the effect is greatest.
2. In a surf, or waves breaking on a bar, where a mass of liquid is in actual motion in shallow water, the effect of the oil is uncertain, as nothing can prevent the larger waves, under such circumstances, from breaking; but it is of some service even here.
3. The thickest and heaviest oils are most effectual. Kerosene refined is of little use. When nothing else is obtainable, crude petroleum is serviceable; but all vegetable and animal oils, such as waste oil from the engines, have great effect.
4. If applied in such a manner as to spread to windward, a small quantity of oil is sufficient.
5. Both when lying or running to, or in wearing, it is useful in a ship or boat.
6. When hoisting a boat up in a seaway at sea, it is highly probable that much time and injury to the boat would be saved by its application.
7. The oil, in cold water, not being able to spread freely, and being thickened by the lower temperature, will have its effect much reduced, varying according to the description of oil used.
8. Small canvas bags, capable of holding from one to two gallons of oil, hanging over the side in such manner as to be in the water, the bags being punctured with a sail needle, so as to expedite the leakage, appears to be the best method of application in a ship at sea. Circumstances should vary the position of these bags. They should be hung on either bow when running before the wind—for example, from the cathead—and should be allowed to tow in the water. The effect seems to be less with the wind on the quarter than in any other position, the waves coming up on the quarter, while the oil goes astern. The weather bow and another position further aft seem the best positions to hang the bags when lying to, and a sufficient length of line to allow them to draw windward as the ship drifts.
9. Oil poured overboard and allowed to float in ahead of the boat, with a bag towing astern, appears to be the best plan when crossing a bar with a flood tide. The effect, however, cannot be so much trusted. For the purpose of entering on a bar with the ebb tide, it appears to be useless to try oil.
10. It is recommended to pour oil overboard to windward before going alongside for boarding a wreck. In this case the effect must depend upon the set of the current and the circumstances of the depth of water.
11. It is recommended for a boat riding in bad weather from a sea anchor to fasten the bag to an endless line rove through a block on the sea anchor, the oil becoming diffused well ahead of the boat, and, if necessary, the bag can be readily hauled on board for refilling.

DAILY TIDE TABLES AT LIVERPOOL FOR THE YEAR 1893.

JANUARY.			FEBRUARY.			MARCH.			APRIL.			MAY.			JUNE.		
LIVERPOOL High Water.			LIVERPOOL High Water.			LIVERPOOL High Water.			LIVERPOOL High Water.			LIVERPOOL High Water.			LIVERPOOL High Water.		
Morn.		Aftern.	Morn.		Aftern.	Morn.		Aftern.	Morn.		Aftern.	Morn.		Aftern.	Morn.		Aftern.
Date.	Day.		Date.	Day.		Date.	Day.		Date.	Day.		Date.	Day.		Date.	Day.	
1	W	h m 10 27	1	W	h m 10 48	1	W	h m 11 52	1	M	h m 11 36	1	M	h m 11 53	1	Th	h m 0 3
2	Th	..	2	Th	..	2	Th	..	2	S	..	2	Th	..	2	F	0 38
3	F	0 37	3	F	0 24	3	F	0 39	3	S	0 24	3	F	0 42	3	S	1 14
4	W	1 24	4	W	1 42	4	W	1 39	4	Th	0 54	4	W	1 14	4	S	1 50
5	Th	2 46	5	Th	2 12	5	Th	1 42	5	F	1 24	5	Th	1 46	5	M	2 30
6	F	3 20	6	F	2 48	6	F	2 10	6	S	1 53	6	F	2 23	6	W	3 17
7	S	3 55	7	S	3 20	7	S	2 40	7	Th	2 23	7	S	3 5	7	Th	4 10
8	M	4 43	8	M	3 55	8	M	3 21	8	F	3 0	8	M	4 1	8	F	5 16
9	W	5 51	9	W	4 43	9	W	4 23	9	S	3 48	9	W	5 18	9	Th	6 28
10	Th	7 21	10	Th	5 51	10	Th	5 52	10	M	5 3	10	Th	6 43	10	F	7 39
11	F	8 41	11	F	7 21	11	F	7 31	11	Th	6 45	11	Th	7 52	11	S	8 26
12	S	9 46	12	S	8 41	12	S	8 23	12	W	8 8	12	F	8 45	12	M	9 18
13	M	10 31	13	M	9 46	13	M	9 10	13	Th	9 5	13	Th	9 28	13	W	10 7
14	W	11 11	14	W	10 31	14	W	10 20	14	F	9 49	14	F	10 9	14	Th	11 1
15	Th	11 49	15	Th	11 11	15	Th	10 5	15	S	10 25	15	S	10 54	15	F	11 56
16	F	12 26	16	F	12 26	16	F	12 26	16	S	11 3	16	S	11 43	16	Th	0 23
17	S	1 43	17	S	1 43	17	S	1 43	17	M	11 45	17	M	0 9	17	F	1 16
18	M	2 43	18	M	2 43	18	M	2 43	18	Th	0 6	18	Th	0 56	18	S	2 5
19	W	3 43	19	W	3 43	19	W	3 43	19	W	0 48	19	W	1 45	19	M	2 54
20	Th	4 43	20	Th	4 43	20	Th	4 43	20	Th	1 32	20	F	2 38	20	Th	3 44
21	F	5 43	21	F	5 43	21	F	5 43	21	F	2 19	21	S	3 34	21	W	4 38
22	S	6 43	22	S	6 43	22	S	6 43	22	S	3 10	22	S	4 42	22	Th	5 37
23	M	7 43	23	M	7 43	23	M	7 43	23	M	4 12	23	M	5 58	23	F	6 42
24	W	8 43	24	W	8 43	24	W	8 43	24	W	5 41	24	W	7 11	24	S	7 43
25	Th	9 43	25	Th	9 43	25	Th	9 43	25	Th	7 17	25	Th	8 10	25	S	8 39
26	F	10 43	26	F	10 43	26	F	10 43	26	F	8 26	26	F	9 10	26	M	9 28
27	S	11 43	27	S	11 43	27	S	11 43	27	S	9 17	27	S	9 39	27	W	10 10
28	M	12 43	28	M	12 43	28	M	12 43	28	M	10 57	28	M	10 14	28	Th	10 48
29	W	1 43	29	W	1 43	29	W	1 43	29	W	11 4	29	W	11 21	29	Th	11 28
30	Th	..	30	Th	..	30	Th	..	30	S	11	30	S	..	30	F	..
31	F	..	31	F	..	31	F	..	31	S	11	31	S	..	31	F	..

Garston tides 7 minutes later than Liverpool each day.

DAILY TIDE TABLES AT LIVERPOOL FOR THE YEAR 1893—Continued.

DAILY TIDE TABLES AT LIVERPOOL FOR THE YEAR 1893—Continued.																	
JULY.			AUGUST.			SEPTEMBER.			OCTOBER.			NOVEMBER.			DECEMBER.		
LIVERPOOL High Water.		Day.	LIVERPOOL High Water.		Day.	LIVERPOOL High Water.		Day.	LIVERPOOL High Water.		Day.	LIVERPOOL High Water.		Day.	LIVERPOOL High Water.		Day.
Morn.	Aftern.		Morn.	Aftern.		Morn.	Aftern.		Morn.	Aftern.		Morn.	Aftern.		Morn.	Aftern.	
h m	h m		h m	h m		h m	h m		h m	h m		h m	h m		h m	h m	
0 25	0 45	1	1 23	1 40	1	2 28	2 48	1	2 25	2 48	1	4 21	4 21	1	5 23	5 23	1
1 1	1 22	2	2 35	2 55	2	3 28	3 48	2	3 13	3 43	2	5 56	5 56	2	6 40	6 40	2
2 18	2 39	3	3 16	3 36	3	4 29	4 49	3	4 22	4 42	3	7 23	7 23	3	7 42	7 42	3
2 59	3 21	4	3 58	4 24	4	5 57	6 17	4	6 3	6 23	4	8 27	8 27	4	8 36	8 36	4
3 44	4 9	5	4 55	5 31	5	7 42	8 2	5	7 8	8 28	5	9 15	9 15	5	9 22	9 22	5
4 36	5 4	6	6 12	6 55	6	8 2	9 32	6	8 54	9 21	6	9 53	9 53	6	10 1	10 1	6
5 36	6 11	7	7 37	8 21	7	9 59	10 21	7	9 42	10 2	7	10 27	10 27	7	10 39	10 39	7
6 46	7 19	8	8 59	9 32	8	10 43	11 5	8	10 20	10 39	8	11 1	11 1	8	11 16	11 16	8
7 53	8 27	9	10 1	10 27	9	11 23	11 41	9	11 30	11 47	9	11 36	11 36	9	11 53	11 53	9
9 1	9 30	10	10 53	11 19	10	..	0 0	10	..	0 3	10	..	0 10	10	0 11	0 11	10
9 58	10 26	11	11 42	..	11	0 19	0 36	11	0 20	0 36	11	0 27	0 43	11	0 46	0 46	11
10 56	11 23	12	0 5	1 6	12	0 52	1 9	12	0 51	1 6	12	0 58	1 15	12	1 20	1 20	12
11 50	..	13	0 47	1 1	13	1 24	1 39	13	1 22	1 36	13	1 32	1 48	13	1 56	1 56	13
0 17	0 42	14	1 24	1 43	14	1 55	2 10	14	1 51	2 9	14	2 2	2 26	14	2 35	2 35	14
0 17	1 32	15	1 59	2 16	15	2 25	2 41	15	2 27	2 46	15	2 49	3 13	15	3 18	3 18	15
1 1	2 12	16	2 32	2 48	16	2 59	3 17	16	2 59	3 17	16	3 43	4 16	16	4 10	4 10	16
1 51	2 53	17	3 6	3 21	17	3 41	4 10	17	4 11	4 54	17	4 53	5 33	17	5 10	5 10	17
2 33	3 38	18	3 43	4 4	18	4 48	5 32	18	5 42	6 31	18	6 17	6 56	18	6 21	6 21	18
3 13	4 12	19	4 29	5 0	19	6 25	7 16	19	7 17	7 55	19	7 27	8 45	19	7 26	8 53	19
4 37	5 3	20	5 36	6 21	20	7 59	8 36	20	8 25	8 49	20	8 21	9 27	20	8 24	9 44	20
5 30	6 4	21	7 8	7 51	21	9 4	9 28	21	9 11	9 30	21	9 7	10 7	21	9 19	10 37	21
6 43	7 19	22	8 31	9 6	22	9 48	10 7	22	9 49	10 5	22	9 47	10 54	22	10 10	11 31	22
7 53	8 29	23	9 33	9 56	23	10 24	10 41	23	10 24	10 42	23	10 30	11 18	23	11 5	..	23
9 0	9 27	24	10 16	10 35	24	10 59	11 16	24	10 59	11 19	24	11 18	11 42	24	..	0 53	24
9 52	10 14	25	10 55	11 12	25	11 32	11 51	25	11 41	..	25	..	0 7	25	..	1 43	25
10 34	10 54	26	11 29	11 46	26	..	0 9	26	11 41	0 22	26	0 32	1 47	26	1 19	2 32	26
11 14	11 34	27	..	0 4	27	0 27	0 47	27	..	0 47	27	1 23	2 40	27	2 2	3 20	27
11 52	..	28	0 22	0 39	28	1 1	1 24	28	0 2	1 4	28	2 13	3 37	28	2 56	4 4	28
0 10	0 28	29	0 57	1 16	29	1 5	2 3	29	0 43	1 51	29	3 8	4 34	29	4 44	5 7	29
0 46	1 5	30	1 33	1 50	30	1 42	2 1	30	1 27	2 40	30	4 11	5 33	30	5 33	6 6	30
		31			31			31	3	3 42	31			31			31

DAILY TIDE TABLES AT GOOLE FOR THE YEAR 1893.

JANUARY.				FEBRUARY.				MARCH.				APRIL.				MAY.				JUNE.			
GOOLE High Water.				GOOLE High Water.				GOOLE High Water.				GOOLE High Water.				GOOLE High Water.				GOOLE High Water.			
Morn.		Aftern.		Morn.		Aftern.		Morn.		Aftern.		Morn.		Aftern.		Morn.		Aftern.		Morn.		Aftern.	
Date.	Day.	Date.	Day.	Date.	Day.	Date.	Day.	Date.	Day.	Date.	Day.	Date.	Day.	Date.	Day.	Date.	Day.	Date.	Day.	Date.	Day.	Date.	Day.
1	S	1	W	1	W	1	S	1	S	1	S	1	S	1	M	1	M	1	Th	1	Th	1	Th
2	M	2	Th	2	Th	2	Th	2	Th	2	Th	2	Th	2	W	2	W	2	F	2	F	2	F
3	W	3	F	3	F	3	F	3	F	3	F	3	F	3	M	3	M	3	S	3	S	3	S
4	Th	4	S	4	S	4	S	4	S	4	S	4	S	4	Th	4	Th	4	W	4	W	4	W
5	F	5	M	5	M	5	M	5	M	5	M	5	M	5	F	5	F	5	Th	5	Th	5	Th
6	S	6	Th	6	Th	6	Th	6	Th	6	Th	6	Th	6	S	6	S	6	F	6	F	6	F
7	M	7	F	7	F	7	F	7	F	7	F	7	F	7	M	7	M	7	S	7	S	7	S
8	W	8	S	8	S	8	S	8	S	8	S	8	S	8	W	8	W	8	W	8	W	8	W
9	Th	9	M	9	M	9	M	9	M	9	M	9	M	9	Th	9	Th	9	Th	9	Th	9	Th
10	F	10	Th	10	Th	10	Th	10	Th	10	Th	10	Th	10	F	10	F	10	F	10	F	10	F
11	S	11	W	11	W	11	W	11	W	11	W	11	W	11	S	11	S	11	S	11	S	11	S
12	M	12	F	12	F	12	F	12	F	12	F	12	F	12	M	12	M	12	M	12	M	12	M
13	W	13	S	13	S	13	S	13	S	13	S	13	S	13	W	13	W	13	W	13	W	13	W
14	Th	14	M	14	M	14	M	14	M	14	M	14	M	14	Th	14	Th	14	Th	14	Th	14	Th
15	F	15	Th	15	Th	15	Th	15	Th	15	Th	15	Th	15	F	15	F	15	F	15	F	15	F
16	S	16	W	16	W	16	W	16	W	16	W	16	W	16	S	16	S	16	S	16	S	16	S
17	M	17	F	17	F	17	F	17	F	17	F	17	F	17	M	17	M	17	M	17	M	17	M
18	W	18	S	18	S	18	S	18	S	18	S	18	S	18	W	18	W	18	W	18	W	18	W
19	Th	19	M	19	M	19	M	19	M	19	M	19	M	19	Th	19	Th	19	Th	19	Th	19	Th
20	F	20	Th	20	Th	20	Th	20	Th	20	Th	20	Th	20	F	20	F	20	F	20	F	20	F
21	S	21	W	21	W	21	W	21	W	21	W	21	W	21	S	21	S	21	S	21	S	21	S
22	M	22	F	22	F	22	F	22	F	22	F	22	F	22	M	22	M	22	M	22	M	22	M
23	W	23	S	23	S	23	S	23	S	23	S	23	S	23	W	23	W	23	W	23	W	23	W
24	Th	24	M	24	M	24	M	24	M	24	M	24	M	24	Th	24	Th	24	Th	24	Th	24	Th
25	F	25	Th	25	Th	25	Th	25	Th	25	Th	25	Th	25	F	25	F	25	F	25	F	25	F
26	S	26	W	26	W	26	W	26	W	26	W	26	W	26	S	26	S	26	S	26	S	26	S
27	M	27	F	27	F	27	F	27	F	27	F	27	F	27	M	27	M	27	M	27	M	27	M
28	W	28	S	28	S	28	S	28	S	28	S	28	S	28	W	28	W	28	W	28	W	28	W
29	Th	29	M	29	M	29	M	29	M	29	M	29	M	29	Th	29	Th	29	Th	29	Th	29	Th
30	F	30	Th	30	Th	30	Th	30	Th	30	Th	30	Th	30	F	30	F	30	F	30	F	30	F
31	S	31	W	31	W	31	W	31	W	31	W	31	W	31	S	31	S	31	S	31	S	31	S

Hull tides 59 minutes earlier than Goole each day.

DAILY TIDE TABLES AT GOOLE FOR THE YEAR 1893—Continued.

JULY.				AUGUST.				SEPTEMBER.				OCTOBER.				NOVEMBER.				DECEMBER.			
GOOLE High Water.		Day.	Date.	GOOLE High Water.		Day.	Date.	GOOLE High Water.		Day.	Date.	GOOLE High Water.		Day.	Date.	GOOLE High Water.		Day.	Date.	GOOLE High Water.		Day.	Date.
Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.		
h m	h m	S	1	h m	h m	F	1	h m	h m	M	1	h m	h m	W	1	h m	h m	F	1	h m	h m	F	1
8 42	9 0	S	2	9 39	10 45	F	2	10 26	11 7	M	2	10 43	11 7	Th	2	0 11	0 54	Th	2	1 20	1 55	S	2
9 18	9 38	M	3	10 14	11 27	W	3	11 4	0 5	Th	3	11 36	0 5	F	3	0 11	0 22	F	3	2 27	2 58	S	3
9 56	10 16	Th	4	10 53	11 13	Th	4	11 51	1 1	Fr	4	0 12	1 1	S	4	1 3	1 41	S	4	3 26	3 56	M	4
10 36	10 57	F	5	11 35	11 57	F	5	0 24	1 25	M	5	1 41	2 28	Th	5	4 12	5 30	Th	5	4 23	4 50	Fr	5
11 18	11 41	W	6	11 35	0 24	W	6	1 41	2 25	Th	6	3 14	3 56	Fr	6	5 5	6 8	W	6	5 14	5 37	S	6
0 37	0 8	Th	7	0 54	1 23	Th	7	3 10	3 56	Fr	7	4 37	5 57	S	7	6 25	6 43	Th	7	6 35	6 16	M	7
1 38	1 8	F	8	2 3	2 39	F	8	4 39	5 17	Th	8	5 36	6 36	Th	8	7 1	7 18	Fr	8	7 14	7 54	Th	8
2 39	2 9	M	9	3 13	3 51	M	9	5 47	6 14	Th	9	6 17	7 13	Fr	9	8 9	8 27	S	9	8 27	8 9	S	9
3 34	3 6	Th	10	4 34	5 13	Th	10	6 36	7 40	Fr	10	7 31	8 20	Th	10	9 8	9 31	Th	10	9 1	9 18	M	10
4 41	4 7	Fr	11	5 47	6 16	Fr	11	7 21	8 17	S	11	8 4	9 20	Th	11	10 25	10 45	Th	11	9 9	9 44	Fr	11
5 45	5 16	S	12	6 43	7 9	S	12	8 36	9 24	Th	12	9 36	10 22	Fr	12	11 10	11 39	Fr	12	9 36	9 55	Th	12
6 42	7 12	M	13	8 21	8 43	M	13	9 40	10 28	Th	13	9 38	10 27	S	13	10 25	10 45	Th	13	10 14	10 34	Th	13
7 40	8 7	Th	14	9 3	9 21	Th	14	10 12	10 28	Fr	14	10 9	10 27	Th	14	11 10	11 39	Th	14	10 54	11 16	Fr	14
8 34	8 58	Fr	15	9 40	10 34	Fr	15	10 44	11 0	S	15	10 46	11 7	Th	15	11 10	11 39	Fr	15	11 41	11 16	S	15
9 22	9 46	S	16	10 16	11 6	S	16	11 19	11 42	Th	16	10 46	11 7	Fr	16	11 10	11 39	Th	16	11 41	11 16	Th	16
10 7	10 29	Th	17	10 50	11 11	Th	17	11 19	11 42	Fr	17	11 35	11 7	S	17	11 10	11 39	Fr	17	11 41	11 16	Fr	17
10 51	11 11	Fr	18	11 25	11 45	Fr	18	11 19	11 42	S	18	11 35	11 7	Th	18	11 10	11 39	S	18	11 41	11 16	S	18
11 32	11 54	S	19	11 25	11 45	S	19	11 19	11 42	Th	19	11 35	11 7	Th	19	11 10	11 39	Th	19	11 41	11 16	Th	19
0 42	0 16	Th	20	0 34	0 9	Th	20	0 43	1 22	Fr	20	11 35	11 7	Fr	20	11 10	11 39	Th	20	11 41	11 16	Th	20
1 37	1 9	Fr	21	1 33	1 2	Fr	21	1 33	2 46	S	21	11 35	11 7	S	21	11 10	11 39	Fr	21	11 41	11 16	Fr	21
2 32	2 3	S	22	2 45	2 25	S	22	2 45	3 32	Th	22	11 35	11 7	Th	22	11 10	11 39	S	22	11 41	11 16	S	22
3 36	3 4	Th	23	3 5	3 25	Th	23	3 49	4 44	Fr	23	11 35	11 7	Fr	23	11 10	11 39	Th	23	11 41	11 16	Th	23
4 42	4 8	Fr	24	4 20	4 48	Fr	24	4 49	5 19	S	24	11 35	11 7	S	24	11 10	11 39	Fr	24	11 41	11 16	Fr	24
5 42	5 14	S	25	5 11	5 48	S	25	5 43	6 3	Th	25	11 35	11 7	Th	25	11 10	11 39	S	25	11 41	11 16	S	25
6 29	6 49	Th	26	6 11	6 32	Th	26	6 22	6 40	Fr	26	11 35	11 7	Fr	26	11 10	11 39	Th	26	11 41	11 16	Th	26
7 9	7 30	Fr	27	7 28	7 46	Fr	27	6 57	7 15	S	27	11 35	11 7	S	27	11 10	11 39	Th	27	11 41	11 16	Fr	27
8 27	8 45	S	28	8 38	8 20	S	28	7 33	7 49	Th	28	11 35	11 7	Th	28	11 10	11 39	Fr	28	11 41	11 16	S	28
9 9	9 21	Th	29	8 38	8 56	Th	29	8 44	8 26	Fr	29	11 35	11 7	Fr	29	11 10	11 39	S	29	11 41	11 16	Th	29
10 27	10 45	Fr	30	9 13	9 31	Fr	30	9 21	9 40	S	30	11 35	11 7	S	30	11 10	11 39	Th	30	11 41	11 16	Fr	30
11 3	11 21	S	31	9 49	10 7	S	31	9 59	10 21	Th	31	11 35	11 7	Th	31	11 10	11 39	Fr	31	11 41	11 16	S	31

Hull tides 59 minutes earlier than Goole each day.

T A B L E

SHOWING the NUMBER of DAYS between any two DATES; also showing the NUMBER of DAYS from any DAY throughout the YEAR to the 31ST of DECEMBER, the usual period to which Interest is Calculated.

JANUARY.			FEBRUARY.			MARCH.			APRIL.			MAY.			JUNE.		
Jan.	Number.	Days to Dec. 31.	Feb.	Number.	Days to Dec. 31.	Mar.	Number.	Days to Dec. 31.	April	Number.	Days to Dec. 31.	May.	Number.	Days to Dec. 31.	June.	Number.	Days to Dec. 31.
1	1	364	1	32	333	1	60	305	1	91	274	1	121	244	1	152	213
2	2	363	2	33	332	2	61	304	2	92	273	2	122	243	2	153	212
3	3	362	3	34	331	3	62	303	3	93	272	3	123	242	3	154	211
4	4	361	4	35	330	4	63	302	4	94	271	4	124	241	4	155	210
5	5	360	5	36	329	5	64	301	5	95	270	5	125	240	5	156	209
6	6	359	6	37	328	6	65	300	6	96	269	6	126	239	6	157	208
7	7	358	7	38	327	7	66	299	7	97	268	7	127	238	7	158	207
8	8	357	8	39	326	8	67	298	8	98	267	8	128	237	8	159	206
9	9	356	9	40	325	9	68	297	9	99	266	9	129	236	9	160	205
10	10	355	10	41	324	10	69	296	10	100	265	10	130	235	10	161	204
11	11	354	11	42	323	11	70	295	11	101	264	11	131	234	11	162	203
12	12	353	12	43	322	12	71	294	12	102	263	12	132	233	12	163	202
13	13	352	13	44	321	13	72	293	13	103	262	13	133	232	13	164	201
14	14	351	14	45	320	14	73	292	14	104	261	14	134	231	14	165	200
15	15	350	15	46	319	15	74	291	15	105	260	15	135	230	15	166	199
16	16	349	16	47	318	16	75	290	16	106	259	16	136	229	16	167	198
17	17	348	17	48	317	17	76	289	17	107	258	17	137	228	17	168	197
18	18	347	18	49	316	18	77	288	18	108	257	18	138	227	18	169	196
19	19	346	19	50	315	19	78	287	19	109	256	19	139	226	19	170	195
20	20	345	20	51	314	20	79	286	20	110	255	20	140	225	20	171	194
21	21	344	21	52	313	21	80	285	21	111	254	21	141	224	21	172	193
22	22	343	22	53	312	22	81	284	22	112	253	22	142	223	22	173	192
23	23	342	23	54	311	23	82	283	23	113	252	23	143	222	23	174	191
24	24	341	24	55	310	24	83	282	24	114	251	24	144	221	24	175	190
25	25	340	25	56	309	25	84	281	25	115	250	25	145	220	25	176	189
26	26	339	26	57	308	26	85	280	26	116	249	26	146	219	26	177	188
27	27	338	27	58	307	27	86	279	27	117	248	27	147	218	27	178	187
28	28	337	28	59	306	28	87	278	28	118	247	28	148	217	28	179	186
29	29	336				29	88	277	29	119	246	29	149	216	29	180	185
30	30	335				30	89	276	30	120	245	30	150	215	30	181	184
31	31	334				31	90	275				31	151	214			

T A B L E
SHOWING the NUMBER of DAYS between any two DATES, &c.—CONTINUED.

JULY.			AUGUST.			SEPTEMBER.			OCTOBER.			NOVEMBER.			DECEMBER.		
July.	Number.	Days to Dec. 31.	Aug.	Number.	Days to Dec. 31.	Sept.	Number.	Days to Dec. 31.	Oct.	Number.	Days to Dec. 31.	Nov.	Number.	Days to Dec. 31.	Dec.	Number.	Days to Dec. 31.
1	182	183	1	213	152	1	244	121	1	274	91	1	305	60	1	335	30
2	183	182	2	214	151	2	245	120	2	275	90	2	306	59	2	336	29
3	184	181	3	215	150	3	246	119	3	276	89	3	307	58	3	337	28
4	185	180	4	216	149	4	247	118	4	277	88	4	308	57	4	338	27
5	186	179	5	217	148	5	248	117	5	278	87	5	309	56	5	339	26
6	187	178	6	218	147	6	249	116	6	279	86	6	310	55	6	340	25
7	188	177	7	219	146	7	250	115	7	280	85	7	311	54	7	341	24
8	189	176	8	220	145	8	251	114	8	281	84	8	312	53	8	342	23
9	190	175	9	221	144	9	252	113	9	282	83	9	313	52	9	343	22
10	191	174	10	222	143	10	253	112	10	283	82	10	314	51	10	344	21
11	192	173	11	223	142	11	254	111	11	284	81	11	315	50	11	345	20
12	193	172	12	224	141	12	255	110	12	285	80	12	316	49	12	346	19
13	194	171	13	225	140	13	256	109	13	286	79	13	317	48	13	347	18
14	195	170	14	226	139	14	257	108	14	287	78	14	318	47	14	348	17
15	196	169	15	227	138	15	258	107	15	288	77	15	319	46	15	349	16
16	197	168	16	228	137	16	259	106	16	289	76	16	320	45	16	350	15
17	198	167	17	229	136	17	260	105	17	290	75	17	321	44	17	351	14
18	199	166	18	230	135	18	261	104	18	291	74	18	322	43	18	352	13
19	200	165	19	231	134	19	262	103	19	292	73	19	323	42	19	353	12
20	201	164	20	232	133	20	263	102	20	293	72	20	324	41	20	354	11
21	202	163	21	233	132	21	264	101	21	294	71	21	325	40	21	355	10
22	203	162	22	234	131	22	265	100	22	295	70	22	326	39	22	356	9
23	204	161	23	235	130	23	266	99	23	296	69	23	327	38	23	357	8
24	205	160	24	236	129	24	267	98	24	297	68	24	328	37	24	358	7
25	206	159	25	237	128	25	268	97	25	298	67	25	329	36	25	359	6
26	207	158	26	238	127	26	269	96	26	299	66	26	330	35	26	360	5
27	208	157	27	239	126	27	270	95	27	300	65	27	331	34	27	361	4
28	209	156	28	240	125	28	271	94	28	301	64	28	332	33	28	362	3
29	210	155	29	241	124	29	272	93	29	302	63	29	333	32	29	363	2
30	211	154	30	242	123	30	273	92	30	303	62	30	334	31	30	364	1
31	212	153	31	243	122				31	304	61				31	365	

TABLE SHOWING THE NUMBER OF DAYS FROM ANY DAY OF ONE MONTH TO
THE SAME DAY OF ANY OTHER MONTH.

NUMBER OF DAYS FROM DAY TO DAY.

FROM TO	JAN.	FEB.	MAR.	APRIL	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.
JANUARY ..	365	31	59	90	120	151	181	212	243	273	304	334
FEBRUARY..	334	365	28	59	89	120	150	181	212	242	273	303
MARCH....	306	337	365	31	61	92	122	153	184	214	245	275
APRIL	275	306	334	365	30	61	91	122	153	183	214	244
MAY.....	245	276	304	335	365	31	61	92	123	153	184	214
JUNE.....	214	245	273	304	334	365	30	61	92	122	153	183
JULY.....	184	215	243	274	304	335	365	31	62	92	123	153
AUGUST....	153	184	212	243	273	304	334	365	31	61	92	122
SEPTEMBER	122	153	181	212	242	273	303	334	365	30	61	91
OCTOBER ..	92	123	151	182	212	243	273	304	335	365	31	61
NOVEMBER..	61	92	120	151	181	212	242	273	304	334	365	30
DECEMBER..	31	62	90	121	151	182	212	243	274	304	335	365

Example of Use of Table:—To find the number of days from 16th August to 27th February. Find August in the side column and February at the top; the number at the intersection, viz., 184, is the number of days from 16th August to 16th February; add 11 (the difference between 16 and 27), and the sum 195 is the number required. Similarly, the number from 16th August to 5th February is 184 less 11, or 173.

A CALENDAR

FOR ASCERTAINING ANY DAY OF THE WEEK FOR ANY GIVEN TIME WITHIN THE PRESENT CENTURY.

YEARS 1801 TO 1900.											31 Jan.	28 Feb.	31 Mar.	30 April	31 May.	30 June	31 July.	31 Aug.	30 Sept.	31 Oct.	30 Nov.	31 Dec.
1801	1807	1818	1829	1835	1846	1857	1863	1874	1885	1891	4	7	7	3	5	1	3	6	2	4	7	2
1802	1813	1819	1830	1841	1847	1858	1869	1875	1886	1897	5	1	1	4	6	2	4	7	3	5	1	3
1803	1814	1825	1831	1842	1853	1859	1870	1881	1887	1898	6	2	2	5	7	3	5	1	4	6	2	4
1805	1811	1822	1833	1839	1850	1861	1867	1878	1889	1895	2	5	5	1	3	6	1	4	7	2	5	7
1806	1817	1823	1834	1845	1851	1862	1873	1879	1890	..	3	6	6	2	4	7	2	5	1	3	6	1
1809	1815	1826	1837	1843	1854	1865	1871	1882	1893	1899	7	3	3	6	1	4	6	2	5	7	3	5
1810	1821	1827	1838	1849	1855	1866	1877	1883	1894	1900	1	4	4	7	2	5	7	3	6	1	4	6

NOTE.—To ascertain any day of the week in any year of the present century, first look in the table of years for the year required, and under the months are figures which refer to the corresponding figures at the head of the columns of days below. *For example:* To know what day of the week May 4 was on in the year 1876, in the table of years look for 1876, and in a parallel line, under May, is figure 1, which directs to column 1, in which it will be seen that May 4 fell on Thursday.

LEAP YEARS.				..	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1804	1832	1860	1888	7	3	4	7	2	5	7	3	6	1	4	6	..	..	..	..	..	..	..
1808	1836	1864	1892	5	1	2	5	7	3	5	1	4	6	2	4	..	..	..	..	..	..	..
1812	1840	1868	1896	3	6	7	3	5	1	3	6	2	4	7	2	..	..	..	..	..	..	..
1816	1844	1872	..	1	4	5	1	3	6	1	4	7	2	5	7	..	..	..	..	..	..	..
1820	1848	1876	..	6	2	3	6	1	4	6	2	5	7	3	5	..	..	..	..	..	..	..
1824	1852	1880	..	4	7	1	4	6	2	4	7	3	5	1	3	..	..	..	..	..	..	..
1828	1856	1884	..	2	5	6	2	4	7	2	5	1	3	6	1	..	..	..	..	..	..	..

1		2		3		4		5		6		7	
Monday	1	Tuesday	1	Wednesday	1	Thursday	1	Friday	1	Saturday	1	SUNDAY	1
Tuesday	2	Wednesday	2	Thursday	2	Friday	2	Saturday	2	SUNDAY	2	Monday	2
Wednesday	3	Thursday	3	Friday	3	Saturday	3	SUNDAY	3	Monday	3	Tuesday	3
Thursday	4	Friday	4	Saturday	4	SUNDAY	4	Monday	4	Tuesday	4	Wednesday	4
Friday	5	Saturday	5	SUNDAY	5	Monday	5	Tuesday	5	Wednesday	5	Thursday	5
Saturday	6	SUNDAY	6	Monday	6	Tuesday	6	Wednesday	6	Thursday	6	Friday	6
SUNDAY	7	Monday	7	Tuesday	7	Wednesday	7	Thursday	7	Friday	7	Saturday	7
Monday	8	Tuesday	8	Wednesday	8	Thursday	8	Friday	8	Saturday	8	SUNDAY	8
Tuesday	9	Wednesday	9	Thursday	9	Friday	9	Saturday	9	SUNDAY	9	Monday	9
Wednes.	10	Thursday	10	Friday	10	Saturday	10	SUNDAY	10	Monday	10	Tuesday	10
Thursday	11	Friday	11	Saturday	11	SUNDAY	11	Monday	11	Tuesday	11	Wednes.	11
Friday	12	Saturday	12	SUNDAY	12	Monday	12	Tuesday	12	Wednes.	12	Thursday	12
Saturday	13	SUNDAY	13	Monday	13	Tuesday	13	Wednes.	13	Thursday	13	Friday	13
SUNDAY	14	Monday	14	Tuesday	14	Wednes.	14	Thursday	14	Friday	14	Saturday	14
Monday	15	Tuesday	15	Wednes.	15	Thursday	15	Friday	15	Saturday	15	SUNDAY	15
Tuesday	16	Wednes.	16	Thursday	16	Friday	16	Saturday	16	SUNDAY	16	Monday	16
Wednes.	17	Thursday	17	Friday	17	Saturday	17	SUNDAY	17	Monday	17	Tuesday	17
Thursday	18	Friday	18	Saturday	18	SUNDAY	18	Monday	18	Tuesday	18	Wednes.	18
Friday	19	Saturday	19	SUNDAY	19	Monday	19	Tuesday	19	Wednes.	19	Thursday	19
Saturday	20	SUNDAY	20	Monday	20	Tuesday	20	Wednes.	20	Thursday	20	Friday	20
SUNDAY	21	Monday	21	Tuesday	21	Wednes.	21	Thursday	21	Friday	21	Saturday	21
Monday	22	Tuesday	22	Wednes.	22	Thursday	22	Friday	22	Saturday	22	SUNDAY	22
Tuesday	23	Wednes.	23	Thursday	23	Friday	23	Saturday	23	SUNDAY	23	Monday	23
Wednes.	24	Thursday	24	Friday	24	Saturday	24	SUNDAY	24	Monday	24	Tuesday	24
Thursday	25	Friday	25	Saturday	25	SUNDAY	25	Monday	25	Tuesday	25	Wednes.	25
Friday	26	Saturday	26	SUNDAY	26	Monday	26	Tuesday	26	Wednes.	26	Thursday	26
Saturday	27	SUNDAY	27	Monday	27	Tuesday	27	Wednes.	27	Thursday	27	Friday	27
SUNDAY	28	Monday	28	Tuesday	28	Wednes.	28	Thursday	28	Friday	28	Saturday	28
Monday	29	Tuesday	29	Wednes.	29	Thursday	29	Friday	29	Saturday	29	SUNDAY	29
Tuesday	30	Wednes.	30	Thursday	30	Friday	30	Saturday	30	SUNDAY	30	Monday	30
Wednes.	31	Thursday	31	Friday	31	Saturday	31	SUNDAY	31	Monday	31	Tuesday	31

A READY RECKONER.

No.	$\frac{1}{4}d.$	$\frac{1}{2}d.$	$\frac{3}{4}d.$	1d.	2d.	3d.	4d.	5d.	6d.	7d.	8d.	9d.	10d.	11d.	No.
1	0	0 $\frac{1}{4}$	0	0 $\frac{1}{2}$	0	0 $\frac{3}{4}$	0	1	0	2	0	3	0	4	1
2	0	0 $\frac{1}{2}$	0	1	0	1 $\frac{1}{2}$	0	2	0	4	0	6	0	8	2
3	0	0 $\frac{3}{4}$	0	1 $\frac{1}{2}$	0	2 $\frac{1}{4}$	0	3	0	6	0	9	0	10	3
4	0	1	0	2	0	3	0	4	0	8	0	10	0	11	4
5	0	1 $\frac{1}{4}$	0	2 $\frac{1}{2}$	0	3 $\frac{1}{4}$	0	5	0	10	0	11	0	12	5
6	0	1 $\frac{1}{2}$	0	3	0	4	0	6	0	12	0	13	0	13	6
7	0	1 $\frac{3}{4}$	0	3 $\frac{1}{2}$	0	5 $\frac{1}{4}$	0	7	0	14	0	15	0	14	7
8	0	2	0	4	0	6	0	8	0	16	0	17	0	15	8
9	0	2 $\frac{1}{4}$	0	4 $\frac{1}{2}$	0	6 $\frac{3}{4}$	0	9	0	18	0	19	0	16	9
10	0	2 $\frac{1}{2}$	0	5	0	7	0	10	0	20	0	21	0	17	10
11	0	2 $\frac{3}{4}$	0	5 $\frac{1}{2}$	0	8 $\frac{1}{4}$	0	11	0	22	0	23	0	18	11
12	0	3	0	6	0	9	0	12	0	24	0	25	0	19	12
13	0	3 $\frac{1}{4}$	0	6 $\frac{1}{2}$	0	9 $\frac{3}{4}$	0	13	0	26	0	27	0	20	13
14	0	3 $\frac{1}{2}$	0	7	0	10	0	14	0	28	0	29	0	21	14
15	0	3 $\frac{3}{4}$	0	7 $\frac{1}{2}$	0	11 $\frac{1}{4}$	0	15	0	30	0	31	0	22	15
16	0	4	0	8	0	12	0	16	0	32	0	33	0	23	16
17	0	4 $\frac{1}{4}$	0	8 $\frac{1}{2}$	0	12 $\frac{3}{4}$	0	17	0	34	0	35	0	24	17
18	0	4 $\frac{1}{2}$	0	9	0	13	0	18	0	36	0	37	0	25	18
19	0	4 $\frac{3}{4}$	0	9 $\frac{1}{2}$	0	13 $\frac{3}{4}$	0	19	0	38	0	39	0	26	19
20	0	5	0	10	0	14	0	20	0	40	0	41	0	27	20
21	0	5 $\frac{1}{4}$	0	10 $\frac{1}{2}$	0	14 $\frac{3}{4}$	0	21	0	42	0	43	0	28	21
22	0	5 $\frac{1}{2}$	0	11	0	15	0	22	0	44	0	45	0	29	22
23	0	5 $\frac{3}{4}$	0	11 $\frac{1}{2}$	0	15 $\frac{3}{4}$	0	23	0	46	0	47	0	30	23
24	0	6	0	12	0	16	0	24	0	48	0	49	0	31	24
25	0	6 $\frac{1}{4}$	0	12 $\frac{1}{2}$	0	16 $\frac{3}{4}$	0	25	0	50	0	51	0	32	25
26	0	6 $\frac{1}{2}$	0	13	0	17	0	26	0	52	0	53	0	33	26
27	0	6 $\frac{3}{4}$	0	13 $\frac{1}{2}$	0	17 $\frac{3}{4}$	0	27	0	54	0	55	0	34	27
28	0	7	0	14	0	18	0	28	0	56	0	57	0	35	28
29	0	7 $\frac{1}{4}$	0	14 $\frac{1}{2}$	0	18 $\frac{3}{4}$	0	29	0	58	0	59	0	36	29
30	0	7 $\frac{1}{2}$	0	15	0	19	0	30	0	60	0	61	0	37	30
33	0	8 $\frac{1}{4}$	0	16 $\frac{1}{2}$	0	20 $\frac{3}{4}$	0	33	0	63	0	64	0	40	33
36	0	9	0	18	0	22	0	36	0	66	0	67	0	43	36
40	0	10	0	20	0	24	0	40	0	72	0	73	0	47	40
42	0	10 $\frac{1}{4}$	0	21 $\frac{1}{2}$	0	25 $\frac{3}{4}$	0	42	0	74	0	75	0	49	42
45	0	11 $\frac{1}{4}$	0	23 $\frac{1}{2}$	0	27 $\frac{3}{4}$	0	45	0	78	0	79	0	52	45
48	1	0	0	24	0	28	0	48	0	80	0	81	0	55	48
50	1	0 $\frac{1}{4}$	0	25 $\frac{1}{2}$	0	29 $\frac{3}{4}$	0	50	0	82	0	83	0	57	50
51	1	0 $\frac{1}{2}$	0	26	0	30	0	51	0	84	0	85	0	58	51
52	1	0 $\frac{3}{4}$	0	27 $\frac{1}{2}$	0	31 $\frac{3}{4}$	0	52	0	86	0	87	0	59	52
53	1	1	0	28	0	32	0	53	0	88	0	89	0	60	53
54	1	1 $\frac{1}{4}$	0	29 $\frac{1}{2}$	0	33 $\frac{3}{4}$	0	54	0	90	0	91	0	61	54
56	1	1 $\frac{1}{2}$	0	30	0	34	0	56	0	92	0	93	0	62	56
60	1	2	0	32	0	36	0	60	0	96	0	97	0	65	60

WAGES TABLE.

Per Year.	Per Month.	Per Week.	Per Day.	Per Year.	Per Month.	Per Week.	Per Day.	Per Year.	Per Month.	Per Week.	Per Day.
£ s.	s. d.	s. d.	s. d.	£ s.	£ s. d.	s. d.	s. d.	£ s.	£ s. d.	£ s. d.	£ s. d.
0 10	0 10	0 2 $\frac{1}{4}$	0 0 $\frac{1}{4}$	8 0	0 13 4	3 1	0 5 $\frac{1}{2}$	18 0	1 10 0	0 6 11	0 0 11 $\frac{3}{4}$
1 0	1 8	0 0 $\frac{1}{2}$	0 0 $\frac{1}{2}$	8 8	0 14 0	3 2 $\frac{1}{2}$	0 5 $\frac{3}{4}$	18 18	1 11 6	0 7 3 $\frac{1}{4}$	0 1 0 $\frac{1}{2}$
1 10	2 6	0 7	0 1	8 10	0 14 2	3 3 $\frac{1}{2}$	0 5 $\frac{1}{2}$	19 0	1 11 8	0 7 3 $\frac{1}{2}$	0 1 0 $\frac{3}{4}$
2 0	3 4	0 9 $\frac{1}{4}$	0 1 $\frac{1}{4}$	9 0	0 15 0	3 5 $\frac{1}{2}$	0 6	20 0	1 13 4	0 7 8 $\frac{1}{4}$	0 1 1 $\frac{1}{4}$
2 2	3 6	0 9 $\frac{3}{4}$	0 1 $\frac{3}{4}$	9 9	0 15 9	3 7 $\frac{1}{2}$	0 6 $\frac{1}{4}$	30 0	2 10 0	0 11 6 $\frac{1}{2}$	0 1 7 $\frac{1}{4}$
2 10	4 2	0 11 $\frac{1}{2}$	0 1 $\frac{1}{2}$	10 0	0 16 8	3 10 $\frac{1}{4}$	0 6 $\frac{1}{2}$	40 0	3 6 8	0 15 4 $\frac{1}{2}$	0 2 2 $\frac{1}{2}$
3 0	5 0	1 1 $\frac{1}{4}$	0 2	10 10	0 17 6	4 0 $\frac{1}{4}$	0 7	50 0	4 3 4	0 19 2 $\frac{1}{4}$	0 2 9
3 3	5 3	1 2 $\frac{1}{4}$	0 2	11 0	0 18 4	4 3 $\frac{1}{4}$	0 7 $\frac{1}{4}$	60 0	5 0 0	1 3 1	0 3 3 $\frac{1}{2}$
3 10	5 10	1 4 $\frac{1}{4}$	0 2 $\frac{1}{4}$	11 11	0 19 3	4 5 $\frac{1}{4}$	0 7 $\frac{3}{4}$	70 0	5 16 8	1 6 11	0 3 10
4 0	6 8	1 6 $\frac{1}{4}$	0 2 $\frac{3}{4}$	12 0	1 0 0	4 7 $\frac{1}{4}$	0 8	80 0	6 13 4	1 10 9 $\frac{1}{4}$	0 4 4 $\frac{1}{2}$
4 4	7 0	1 7 $\frac{1}{4}$	0 2 $\frac{3}{4}$	12 12	1 1 0	4 10 $\frac{1}{4}$	0 8 $\frac{1}{4}$	90 0	7 10 0	1 14 7 $\frac{1}{2}$	0 4 11 $\frac{1}{4}$
4 10	7 6	1 8 $\frac{3}{4}$	0 3	13 0	1 1 8	5 0	0 8 $\frac{3}{4}$	100 0	8 6 8	1 18 5 $\frac{1}{2}$	0 5 5 $\frac{1}{4}$
5 0	8 4	1 11	0 3 $\frac{1}{2}$	13 13	1 2 9	5 3	0 9	200 0	16 13 4	3 16 11	0 10 11 $\frac{1}{2}$
5 5	8 9	2 0 $\frac{1}{4}$	0 3 $\frac{3}{4}$	14 0	1 3 4	5 4 $\frac{1}{2}$	0 9 $\frac{1}{4}$	300 0	25 0 0	5 15 4 $\frac{1}{2}$	0 16 5 $\frac{1}{4}$
5 10	9 2	2 1 $\frac{1}{4}$	0 3 $\frac{3}{4}$	14 14	1 4 6	5 7 $\frac{1}{4}$	0 9 $\frac{3}{4}$	400 0	33 6 8	7 13 10 $\frac{1}{4}$	1 1 11
6 0	10 0	2 3 $\frac{1}{4}$	0 4	15 0	1 5 0	5 9 $\frac{1}{4}$	0 9 $\frac{3}{4}$	500 0	41 13 4	9 12 3 $\frac{1}{4}$	1 7 4 $\frac{3}{4}$
6 6	10 6	2 5	0 4 $\frac{1}{4}$	15 15	1 6 3	6 0 $\frac{1}{4}$	0 10 $\frac{1}{4}$	600 0	50 0 0	11 10 9 $\frac{1}{4}$	1 12 10 $\frac{1}{2}$
6 10	10 10	2 6	0 4 $\frac{1}{4}$	16 0	1 6 8	6 1 $\frac{1}{4}$	0 10 $\frac{1}{2}$	700 0	58 6 8	13 9 2 $\frac{1}{4}$	1 18 4 $\frac{1}{4}$
7 0	11 8	2 8 $\frac{1}{4}$	0 4 $\frac{3}{4}$	16 16	1 8 0	6 5 $\frac{1}{2}$	0 11	800 0	66 13 4	15 7 8 $\frac{1}{4}$	2 3 10
7 7	12 3	2 10	0 4 $\frac{3}{4}$	17 0	1 8 4	6 6 $\frac{1}{4}$	0 11 $\frac{1}{4}$	900 0	75 0 0	17 6 13	2 9 3 $\frac{1}{4}$
7 10	12 6	2 10 $\frac{1}{2}$	0 5	17 17	1 9 9	6 10 $\frac{1}{2}$	0 11 $\frac{3}{4}$	1000 0	83 6 8	19 4 7 $\frac{1}{4}$	2 14 9 $\frac{1}{2}$

WEIGHTS AND MEASURES.

TROY WEIGHT.

	Pennywts.	Grains.	gr.
Ounces.	1	=	24
Pound.	1	=	20
	1	=	12
	1	=	240
A carat	=	4 grains.	100 Troy ounces = 190 $\frac{5}{7}$
		Ounces Avoirdupois.	

AVOIRDUPOIS WEIGHT.

	dr.	Ty.	gr.
Oz.	1	=	27 $\frac{1}{8}$
lb.	1	=	16
st.	1	=	16
qr.	1	=	14
cwt.	1	=	2
Ton.	1	=	4
	1	=	20
	1	=	80
	1	=	160
	1	=	2240
	1	=	35840
	1	=	573440
Ton.	cwt.	qr.	st.
	lb.	oz.	dr.
			gr.

A Cental = 100 pounds. 100 Ounces Avoirdupois = 91 $\frac{7}{8}$ Ounces Troy.

The Apothecaries' Weight is now the same as the Avoirdupois.

LINEAL MEASURE, OR MEASURE OF LENGTH.

	ft.	in.
yds.	1	=
pl.	1	=
ch.	1	=
fur.	1	=
Mile.	1	=
	1	=

A league = 3 miles. A hand = 4 inches. A fathom = 6 feet.

Geographical degree = 60 geographical or nautical miles = 69.121 imper. miles.

Geographical mile = 1.150 imperial miles. A military pace = 2 $\frac{1}{2}$ feet.

SOLID OR CUBIC MEASURE.

	Cubic feet.	Cubic inches.
Cubic yard.	1	=
	1	=
1 Ton of Shipping	=	40 cubic feet.
1 Barrel Bulk	=	5 cubic feet.

LIQUID MEASURE OF CAPACITY.

	Quarts.	Pints.	Gills.
Gallon.	1	=	4
	1	=	2
	1	=	8

A hogshead (lhd.) contains 63 gallons. A pipe is 2 hogsheads, and 2 pipes form a tun. All liquids are measured by this table.

GRAIN MEASURE, &C., OR DRY MEASURE OF CAPACITY.

	Bushels.	Pecks.	Gallons.
Quarter.	1	=	2
	1	=	4
	1	=	32
	1	=	64
1 Boll of Wheat	=	4 bushels nearly.	
1 Boll of Barley	=	6	
5 Bushels	are	a sack.	
5 Quarters	make	a load.	

SQUARE OR LAND MEASURE.

	Sq. feet.	Sq. in.
Sq. yards.	1	=
Sq. poles.	1	=
Sq. roods.	1	=
Sq. acre.	1	=
	1	=

1 square mile = 640 acres: 36 square yards = 1 rood of building: 100 sq. feet = 1 square of flooring: 272 $\frac{1}{4}$ sq. feet = 1 rood of bricklayer's work. The chain with which land is measured is 22 yards long, and 1 sq. chain = 10,000 sq. links, contains 22 x 22 = 484 sq. yards: 10 sq. chains = 1 acre.

TABLE OF TIME.

	Hours.	Minutes.	Seconds.
Days.	1	=	60
Week.	1	=	24
	1	=	7
	1	=	168
	1	=	10080

1 Common Year = 365 days, or 52 weeks 1 day.
1 Leap Year = 366 days, or 52 weeks 2 days.
1 Solar Year = 365 days 5 hours 48 minutes 49 seconds.

GEOGRAPHICAL OR NAUTICAL MEASURE.

1 Geographical mile	=	{ 1 $\frac{3}{4}$ imperial mile of 6,076 feet.
3	"	miles .. = 1 league.
60	"	miles .. = { 1 degree, marked deg. or [°].
360	"	degs. or about { Circumference of the earth.
		24,855 $\frac{1}{2}$ imp. miles =

BREAD WEIGHT.

	lb.	oz.
A Peck Loaf weighs	17	6 $\frac{1}{2}$
A Half Peck Loaf	8	11
A Quartern Loaf	4	5
A Peck or Stone of Flour	14	0
A Bushel of Flour	56	6
A Sack of Flour, or 5 Bushels	280	0

USEFUL WEIGHTS.

The following Table will be found useful when it is desired to ascertain the weight of a letter or other article, and suitable weights are not at hand. The weight given is that of coins fairly worn; allowance must be made if those used be new or very old.

1 oz.	....	Halfpenny and threepenny piece.
1	....	One penny piece.
1	....	Florin and sixpence.
1	....	Three pennies.
2	....	4 half-crowns and one shilling.
4	....	4 florins, 4 half-crowns, 2 $\frac{1}{2}$ pennies.

BOOKS.

	Pages.	Leaves.	Sheets.
Folio Books	4	or 2	make 1
Quarto, or 4to	8	" 4	" 1
Octavo, 8vo	16	" 8	" 1
Duodecimo, or 12mo	24	" 12	" 1
Octodecimo, or 18mo	36	" 18	" 1
24mo, 32mo, 48mo, 72mo, &c., &c.			

TERMS AND ABBREVIATIONS COMMONLY USED IN BUSINESS.

A/cAccount.

CCurrency.

\$A dollar.

E. E.Errors excepted.

E. & O. E.....Errors and omissions
excepted.

F. O. B.....Free on board(delivered
on deck without expense to the
ship).

F. P. A.....Free of particular
average.

INST.....Present month.

PROX.....Next month.

ULT.....Last month.

D/DDays after date.

M/D.....Months after date.

D/S.....Days after sight.

%.....Per cent.

@ p lbAt per pound.

B/L.....Bill of lading.

AD VALOREM ..According to value.

AFFIDAVITStatement on oath.

AFFIRMATION..Statement without an
oath.

AGIOThe premium borne
by a better sort of money above
an inferior.

ASSETSA term for property
in contradistinction to liabilities.

BANCOA continental term for
bank money at Hamburg and
other places.

DEAD FREIGHT.—The damage payable by one who engages to load a ship fully,
and fails to do so.

DEVIATION, in marine insurance, is that divergence from the voyage insured
which releases the underwriter from his risk.

DISCOUNT.—An allowance made for payment of money before due.

POLICY.—The document containing the contract of insurance. A *Valued Policy*
is when the interest insured is valued. An *Open Policy* is one in which the
amount is left for subsequent proof. In an open policy where the value
shipped does not equal the value insured, the difference is termed *over*
insurance; and the proportionable amount of premium returnable to the
insurer is called a *return for short interest*.

PRIMAGE.—A small allowance for the shipmaster's care of goods, now generally
included in the freight.

PRO RATA.—Payment in proportion to the various interests concerned.

QUID PRO QUO.—Giving one thing for another.

RESPONDENTIA.—A contract of loan by which goods in a ship are hypothecated
to the lender, as in bottomry.

ULLAGE.—The quantity a cask wants of being full.

CO-OPERATIVE CONGRESSES.

No.	Year.	Date of Opening.	Where Held.	PRESIDENTS.		
				First Day. Inaugural Address delivered by	Second Day.	Third Day.
1	1869	May 31	London: Society of Arts, John-st., Adelphi	T. Hughes, M.P.....	A. J. Mundella, M.P.	W. Morrison, M.P.
2	1870	June 6	Manchester: Memorial Hall	W. Morrison, M.P..... [M.P.]	Rev. W. N. Molesworth, M.A.....	J. T. Hibbert, M.P.
3	1871	April 10	Birmingham: Midland Institute	Hon. Auberon Herbert,	C. Cattell	W. Morrison, M.P.
4	1872	" 1	Bolton: Co-operative Hall	T. Hughes, M.P.....	E. V. Neale	W. Morrison, M.P.
5	1873	" 12	Newcastle: Mechanics' Institute	Joseph Cowen, jun....	W. Morrison, M.P....	T. Hughes, M.P.
6	1874	" 6	Halifax: Mechanics' Hall	Thomas Brassey, M.P..	W. Morrison	W. Morrison.
7	1875	Mar. 29	London: Co-operative Institute.....	Professor T. Rogers ..	T. Hughes, Q.C.....	W. Morrison.
8	1876	April 17	Glasgow: Assembly-rooms, 138, Bath-st.	*Professor Caird	G. Anderson, M.P..	Baillie Collins.
9	1877	" 2	Leicester: Museum Hall.....	Professor Hodgson....	Lloyd Jones.....	Abraham Greenwood
10	1878	" 22	Manchester: Co-op. Hall, Downing-st..	Hon. Auberon Herbert.	Bishop of Manchester	Dr. John Watts.
11	1879	" 14	Gloucester: Corn Exchange	Marquis of Ripon	J. T. W. Mitchell ..	James Crabtree.
12	1880	May 17	Newcastle-on-Tyne: Bath-lane Schoolrm.	Professor Stuart.....	R. S. Watson	H. R. Bailey.
13	1881	June 6	Leeds: Albert Hall	Bishop of Durham	T. Hughes, Q.C.....	James Crabtree.
14	1882	May 29	Oxford: Town Hall	Lord Derby	Councillor Pumphrey	George Hines.
15	1883	" 14	Edinburgh: Oddfellows' Hall.....	Lord Reay	William Maxwell ..	John Allan.
16	1884	June 2	Derby: Lecture Hall, Wardwick	Rt. Hon. W. E. Baxter, M.P.	A. Scotton	[Lincoln.
17	1885	May 25	Oldham: Co-operative Hall, King-street.	Sedley Taylor	F. Hardern	Councillor Hartley,
18	1886	June 14	Plymouth: Guildhall	Lloyd Jones.....	A. H. D. Acland, M.P.	Lewis Feber.
19	1887	May 30	Carlisle: Her Majesty's Theatre	Earl of Morley	Sir W. Lawson, M.P.	J. H. Young.
20	1888	" 21	Dewsbury: Industrial Hall.....	G. J. Holyoake	Marquis of Ripon ..	Councillor Rule.
21	1889	June 10	Ipswich: Public Hall	E. V. Neale	B. Jones	Jno. Cave, jun.
22	1890	May 26	Glasgow: City Hall	Professor A. Marshall.	William Maxwell ..	G. Hines.
23	1891	" 18	Lincoln: Drill Hall, Broadgate.....	Earl of Rosebery	D. M'Innes	James Deans.
24	1892	June 6	Rochdale: Baillie-street Chapel.....	A. H. D. Acland, M.P.	A. Greenwood	J. Hepworth. Councillor Cheetham

* Professor Caird presided at this Congress; the inaugural address was delivered by him.

PRINCIPAL ARTICLES OF THE CALENDAR,
FOR THE YEAR 1893.

Golden Number	xiii	Dominical Letter	A
Epact	12	Roman Indiction	6
Solar Cycle	26	Julian Period.....	6606

FIXED AND MOVABLE FESTIVALS, ANNIVERSARIES, ETC.

Epiphany	Jan. 6	Ascension Day	May 11
Septuagesima Sunday	„ 29	Pentecost—Whit Sunday	„ 21
Sexagesima Sunday	Feb. 5	Queen Victoria born (1819) ..	„ 24
Quinquagesima Sunday	„ 12	Trinity Sunday	„ 28
Ash Wednesday	„ 15	Corpus Christi	June 1
Quadragesima—1 Sun. in Lent ..	„ 19	Accession of Queen Vict. (1837) ..	„ 20
St. David	Mar. 1	Proclamation	„ 21
St. Patrick	„ 17	St. John Baptist—Midsum. Day ..	„ 24
Lady Day	„ 25	St. Michael—Michaelmas Day.	Sept. 29
Palm Sunday	„ 26	Prince of Wales born (1841) ..	Nov. 9
Good Friday	„ 31	St. Andrew	„ 30
Easter Sunday.....	April 2	Advent Sunday.....	Dec. 3
Low Sunday	„ 9	Christmas Day (Monday)	„ 25
Rogation Sunday.....	May 7		

The Year 5654 of the Jewish Era commences on September 11th, 1893.

Ramadân (Month of Abstinence observed by the Turks) commences on
March 19th, 1893.

The Year 1311 of the Mahommedan Era commences on July 15th, 1893.

Calendar for 1893.

January.						February.						March.					
S	1	8	15	22	29	S	..	5	12	19	26	S	..	5	12	19	26
M	2	9	16	23	30	M	..	6	13	20	27	M	..	6	13	20	27
Tu	3	10	17	24	31	Tu	..	7	14	21	28	Tu	..	7	14	21	28
W	4	11	18	25	..	W	1	8	15	22	..	W	1	8	15	22	29
Th	5	12	19	26	..	Th	2	9	16	23	..	Th	2	9	16	23	30
F	6	13	20	27	..	F	3	10	17	24	..	F	3	10	17	24	31
S	7	14	21	28	..	S	4	11	18	25	..	S	4	11	18	25	..
April.						May.						June.					
S	..	2	9	16	23 30	S	..	7	14	21	28	S	..	4	11	18	25
M	..	3	10	17	24 ..	M	1	8	15	22	29	M	..	5	12	19	26
Tu	..	4	11	18	25 ..	Tu	2	9	16	23	30	Tu	..	6	13	20	27
W	..	5	12	19	26 ..	W	3	10	17	24	31	W	..	7	14	21	28
Th	..	6	13	20	27 ..	Th	4	11	18	25	..	Th	1	8	15	22	29
F	..	7	14	21	28 ..	F	5	12	19	26	..	F	2	9	16	23	30
S	1	8	15	22	29 ..	S	6	13	20	27	..	S	3	10	17	24	..
July.						August.						September.					
S	..	2	9	16	23 30	S	..	6	13	20	27	S	..	3	10	17	24
M	..	3	10	17	24 31	M	..	7	14	21	28	M	..	4	11	18	25
Tu	..	4	11	18	25 ..	Tu	1	8	15	22	29	Tu	..	5	12	19	26
W	..	5	12	19	26 ..	W	2	9	16	23	30	W	..	6	13	20	27
Th	..	6	13	20	27 ..	Th	3	10	17	24	31	Th	..	7	14	21	28
F	..	7	14	21	28 ..	F	4	11	18	25	..	F	1	8	15	22	29
S	1	8	15	22	29 ..	S	5	12	19	26	..	S	2	9	16	23	30
October.						November.						December.					
S	1	8	15	22	29	S	..	5	12	19	26	S	..	3	10	17	24 31
M	2	9	16	23	30	M	..	6	13	20	27	M	..	4	11	18	25 ..
Tu	3	10	17	24	31	Tu	..	7	14	21	28	Tu	..	5	12	19	26 ..
W	4	11	18	25	..	W	1	8	15	22	29	W	..	6	13	20	27 ..
Th	5	12	19	26	..	Th	2	9	16	23	30	Th	..	7	14	21	28 ..
F	6	13	20	27	..	F	3	10	17	24	..	F	1	8	15	22	29 ..
S	7	14	21	28	..	S	4	11	18	25	..	S	2	9	16	23	30 ..

January.

SUNRISE AND SUNSET.

1st Rises at.. 8 8 Sets at .. 4 0 | 15th Rises at .. 8 2 Sets at .. 4 18
 8th „ .. 8 6 „ .. 4 8 | 22nd „ .. 7 54 „ .. 4 30
 29th Rises at 7 45. Sets at 4 42.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises.. 2 20 aft. Sets 7 25 morn. | 15th Rises 6 35 morn. Sets 1 19 aft.
 8th „ .. 11 27 „ „ 11 5 „ | 22nd „ 7 10 „ „ 9 57 „
 29th Rises 1 10 aft. Sets 6 19 morn.

Full Moon, 2nd 1 41 aft. | New Moon, 18th 1 28 morn.
 Last Quarter, 9th 10 28 „ | First Quarter, 25th 6 27 „

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	S	1801	Union with Ireland
2	M	1868	DECIDED TO START SCOTTISH WHOLESALE SOCIETY
3	Tu	1803	Douglas Jerrold born
4	W	1863	Working Men's College, London, opened
5	Th	1827	Duke of York died
6	F		<i>Epiphany</i>
7	S	1842	Retreat from Cabul
8	S		First Sunday after Epiphany
9	M		Fire Insurance expires
10	Tu	1840	Penny Post commenced
11	W	1866	Wreck of the "London"
12	Th	1887	Lord Iddesleigh died
13	F	1873	<i>Crumpsall Works purchased</i>
14	S	1742	Halley, astronomer, died
15	S	1877	<i>Cork Branch established</i>
16	M	1809	Battle of Corunna. Sir John Moore killed
17	Tu	1706	Benjamin Franklin born
18	W	1890	James Hilton, director C. W. S., died
19	Th	1876	Albert Music Hall, Glasgow, burnt
20	F	1779	David Garrick died
21	S	1793	Louis XVI. guillotined
22	S		Third Sunday after Epiphany
23	M	1875	Canon Kingsley died
24	Tu		Frederick the Great born
25	W	1759	Robert Burns born
26	Th	1878	Great Famine in China
27	F	1823	Dr. Jenner died
28	S		<i>Nomination Lists : Last day for receiving</i>
29	S		Septuagesima Sunday
30	M	1880	S.S. "Plover" sold
31	Tu	1892	Rev. C. H. Spurgeon died

February.

SUNRISE AND SUNSET.

1st Rises at.. 7 41 Sets at 4 48 | 15th Rises at.. 7 16 Sets at .. 5 13
 8th ,, .. 7 29 ,, 5 0 | 22nd ,, .. 7 2 ,, .. 5 26

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises.. 5 13 aft. Sets 8 25 morn. | 15th Rises 7 22 morn. Sets 3 30 aft.
 8th ,, 0 46 morn. ,, 9 57 ,, | 22nd ,, 9 13 ,, ,, morn.

Full Moon, 1st 2 11 morn. | New Moon, 16th 4 17 aft.
 Last Quarter, 8th..... 8 12 aft. | First Quarter, 23rd 2 14 ,,

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	W	1878	George Cruikshank died
2	Th	1874	<i>Tralee Branch opened—Candlemas Day</i>
3	F	1830	Marquis of Salisbury born
4	S	1852	Holmfirth Flood
5	S		Seragesima Sunday
6	M	1685	King Charles II. died
7	Tu	1812	Charles Dickens born
8	W		Half Quarter Day
9	Th	1880	Wreck of the "Eurydice"
10	F	1840	Queen Victoria married
11	S	1826	London University Charter
12	S		Quinquagesima Sunday
13	M	1637	Turner, historian, died—Trial of Warren Hastings
14	Tu	1876	<i>Opening of Newcastle Building, Waterloo Street</i>
15	W		<i>Ash Wednesday</i>
16	Th	1887	Wreck of the "George Cromwell"
17	F	1861	Duchess of Albany born
18	S	1889	<i>Enderby Extension opened</i>
19	S		Quadragesima Sunday
20	M	1855	Joseph Hume died
21	Tu	1879	<i>"Pioneer" launched—New York Branch estab., 1876</i>
22	W	1875	Sir Charles Lyell died
23	Th	1732	George Washington born
24	F	1806	James Barry died
25	S	1878	KILMARNOCK BRANCH, SCOTTISH C.W.S., OPENED
26	S		Second Sunday in Lent
27	M	1807	H. W. Longfellow born
28	Tu		<i>Voting Lists: Last day for receiving</i>

March.

SUNRISE AND SUNSET.

1st Rises at .. 6 47 Sets at 5 38 15th Rises at.... 6 16 Sets at.. 6 3
 8th ,, .. 6 32 ,, 5 51 22nd ,, 6 0 ,, .. 6 15
 29th Rises at 5 44. Sets at 6 26.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises..4 11 aft. Sets 6 47 morn. 15th Rises 5 48 morn. Sets 2 26 aft.
 8th ,, morn. ,, 8 18 ,, 22nd ,, 7 39 ,, morn.
 29th Rises 3 16 aft. Sets 6 12 morn.

Full Moon, 2nd..... 4 3 aft. New Moon, 18th 4 34 morn.
 Last Quarter, 10th 5 14 First Quarter, 24th 9 34 aft.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	W	1869	<i>1, Balloon Street, Manchester, Warehouse opened</i>
2	Th	1810	Pope Leo born
3	F	1793	W. C. Macready born [Quarterly Meetings
4	S		<i>Newcastle and London Branch and Divisional</i>
5	S		Third Sunday in Lent
6	M	1886	Richard Whittle, director C. W. S., died
7	Tu	1883	Green, historian, died
8	W	1844	Bernadotte died
9	Th	1874	<i>London Branch established</i>
10	F	1890	<i>Trial trip s.s. "Liberty"</i>
11	S		<i>General Quarterly Meeting</i>
12	S		Fourth Sunday in Lent
13	M	1881	The Czar's Accession [COMMENCED, 1887
14	Tu	1864	<i>Wholesale Society commenced business—BATLEY MILL</i>
15	W	1860	HECKMONDWIKE CO-OPERATIVE SOCIETY COMMENCED
16	Th	1856	Prince Louis Napoleon born
17	F		<i>St. Patrick</i>
18	S	1848	Princess Louise born
19	S		Fifth Sunday in Lent
20	M	1845	Sir Thomas Potter, Knight, died
21	Tu	1871	Princess Louise married
22	W	1797	Emperor William I. of Germany died
23	Th	1849	Battle of Novara [COM., 1857
24	F	1879	<i>Rouen Branch opened—ECCLES CO-OP. SOCIETY</i>
25	S		<i>Co-operative Wholesale Society Quarter Day</i>
26	S		Palm Sunday
27	M		<i>Oxford and Cambridge Lent Term ends</i>
28	Tu	1884	Duke of Albany died
29	W	1879	<i>Trial trip s.s. "Pioneer"—7TH CONGRESS, LONDON,</i>
30	Th	1707	Marshal Vauban died [1875. Prof. T. ROGERS, Pres.
31	F	1883	SCOTTISH C.W.S. DECIDED TO ERECT BOOT FACTORY [Good Friday]

April.

SUNRISE AND SUNSET.

1st Rises at .. 5 38 Sets at .. 6 31 | 15th Rises at.. 5 6 Sets at .. 6 55
 8th „ .. 5 22 „ .. 6 43 | 22nd „ .. 4 52 „ .. 7 6
 29th Rises at 4 38. Sets at 7 18.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises 6 59 aft. Sets 5 46 morn. | 15th Rises 4 51 morn. Sets 5 37 aft.
 8th „ 2 0 morn. „ 8 27 „ | 22nd „ 9 0 „ „ 1 58 morn.
 29th Rises 5 59 aft. Sets 4 6 morn.

Full Moon, 1st 7 18 morn. | New Moon, 16th 2 35 aft.
 Last Quarter, 9th 11 35 „ | First Quarter, 23rd 5 26 morn.
 Full Moon, 30th 11 23 aft.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	S	1872	4TH CONGRESS, BOLTON. T. HUGHES, M.P., President
2	S	1877	9TH CON., LEICESTER. Hon. A. HERBERT, Pres.— <i>L'pool</i>
3	M		[<i>Depôt com.</i> , 1875—R. Allen, direc. C.W.S., d., 1877
4	Tu	1774	Oliver Goldsmith died
5	W	1811	Robert Raikes died
6	Th	1874	6TH CONGRESS, HALIFAX. T. BRASSEY, M.P., Pres.
7	F	1884	<i>Hamburg Branch commenced</i>
8	S	1778	Lord Chatham died [Insurance expires
9	S	1877	LEITH BRANCH, SCOTTISH WHOLESALE, OPENED—Fire
10	M	1871	3RD CONGRESS, BIRMINGHAM. A. HERBERT, M.P., Pres.
11	Tu	1861	American Civil War commenced
12	W	1873	5TH CONGRESS, NEWCASTLE. J. COWEN, jun., Pres.
13	Th	1872	Samuel Bamford died
14	F	1873	<i>Armagh Branch opened</i> —11TH CONGRESS, GLO'STER.
15	S		[Prof. J. STUART, Pres., 1879
16	S		Second Sunday after Easter
17	M	1876	8TH CONGRESS, GLASGOW. Prof. HODGSON, Pres.
18	Tu	1891	<i>Dunston Corn Mill opened</i>
19	W	1881	Lord Beaconsfield died
20	Th	1868	SCOTTISH CO-OPERATIVE WHOLESALE S. ENROLLED
21	F	1873	Justus Liebig, chemist, died
22	S	1878	(10TH CONGRESS, MANCHESTER. Marq. of RIPON, Presi- dent— <i>Nottingham Saleroom opened</i> , 1886
23	S		Third Sunday after Easter
24	M	1866	<i>Tipperary Branch opened</i>
25	Tu	1844	ROCHDALE PIONEERS' SOCIETY COMMENCED
26	W	1819	Duke of Cambridge born
27	Th	1882	Prince Leopold married
28	F	1759	William Pitt born
29	S		<i>Nomination Lists: Last day for receiving</i>
30	S		Fourth Sunday after Easter

May.

SUNRISE AND SUNSET.

1st Rises at .. 4 34 Sets at .. 7 21 | 15th Rises at.. 4 10 Sets at .. 7 43
 8th ,, .. 4 21 ,, .. 7 32 | 22nd ,, .. 4 1 ,, .. 7 53
 29th Rises at 3 53. Sets at 8 2.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises 8 25 aft. Sets 4 30 morn. | 15th Rises 3 41 morn. Sets 7 36 aft.
 8th ,, 1 53 morn. ,, 9 39 ,, | 22nd ,, 10 51 ,, 1 26 morn.
 29th Rises 7 27 aft. Sets 2 53 morn.

Last Quarter, 9th 2 24 morn. | First Quarter, 22nd 2 52 aft.
 New Moon, 15th 10 47 aft. | Full Moon, 30th 3 23 ,,

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	M	1892	John Thirlaway, director C. W. S., died
2	Tu	1868	Thames Embankment opened
3	W	1845	Tom Hood died
4	Th	1876	Strike at Constantinople
5	F	1892	<i>Birmingham Saleroom opened</i>
6	S	1859	Humboldt died
7	S		Rogation Sunday
8	M	1860	Paper Duty abolished
9	Tu	1873	John Stuart Mill died—Half Quarter Day
10	W	1816	Dr. Royle, Bishop of Liverpool, born
11	Th	1812	Spencer Percival shot
12	F	1869	Co-op. Printing Society, Manchester, com. business
13	S	1771	Robert Owen born
14	S	1883	15TH CON., EDINBURGH. W. E. BAXTER, M.P., Pres.
15	M	1847	Daniel O'Connell died
16	Tu	1871	Vendome Column destroyed
17	W	1880	12TH CON., NEWCASTLE. Bishop of DURHAM, Pres.
18	Th	1891	23RD CON., LINCOLN. A. H. D. ACLAND, M.P., Pres.—
19	F		[Samuel Lever, director C. W. S., died, 1888]
20	S	1506	Columbus died
21	S	1888	20TH CONGRESS, DEWSBURY. E. V. NEALE, Pres.
22	M	1886	Lloyd Jones died
23	Tu	1812	Guilia Grisi born
24	W	1876	<i>Purchase of s.s. "Plover"</i> [son, direc. C. W. S., died, 1890]
25	Th	1885	17TH CONG., OLDHAM. LLOYD JONES, Pres.—J. Atkin-
26	F	1890	22ND CONGRESS, GLASGOW. Earl of ROSEBERY, Pres.
27	S	1564	Calvin died
28	S		[OXFORD. Ld. REAY, Pres., 1882]
29	M	1859	MANCHESTER EQUIT. SOCIETY COM.—14TH CONGRESS,
30	Tu	1887	19TH CONGRESS, CARLISLE. G. J. HOLYOAKE, Pres.—
31	W		[Voting Lists : Last day for receiving

June.

SUNRISE AND SUNSET.

1st Rises at .. 3 51 Sets at .. 8 5 | 15th Rises at.. 3 44 Sets at .. 8 16
 8th „ .. 3 46 „ .. 8 12 | 22nd „ .. 3 45 „ .. 8 19
 29th Rises at 3 48. Sets at 8 18.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises..10 41 aft. Sets 4 25 morn. | 15th Rises 4 14 morn. Sets 10 25 aft.
 8th „ 1 4 morn. „ 0 41 aft. | 22nd „ 1 38 aft. „ 0 23 morn.
 29th Rises 9 23 morn. Sets 3 6 morn.

Last Quarter, 7th..... 1 43 aft. | First Quarter, 21st 2 37 morn.
 New Moon, 14th 5 51 morn. | Full Moon, 28th 6 25 „

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	Th	1868	<i>Kilmallock Branch opened</i>
2	F	1884	16TH CONGRESS, DERBY. SEDLEY TAYLOR, Pres.
3	S		<i>Newcastle and London Branch and Divisional</i>
4	S		First Sunday after Trinity [Quarterly Meetings]
5	M	1723	Adam Smith born
6	Tu	1892	24TH CON., ROCHDALE. J. T. W. MITCHELL, Pres.
7	W	1832	First Reform Bill passed
8	Th	1873	Alexandra Palace burnt
9	F	1870	Charles Dickens died
10	S	1889	21ST CONGRESS, IPSWICH. Prof. A. MARSHALL, Pres.
11	S		[General Quarterly Meeting]
12	M	1876	Midland Federal Corn Mill, Laying Foundation Stones
13	Tu	1889	Armagh Railway Disaster
14	W	1886	18TH CONGRESS, PLYMOUTH. Lord MORLEY, Pres.
15	Th	1875	<i>Manchester Drapery Warehouse, Dantzic St., opened</i>
16	F	1888	Emp. Fred. Wm. of Germany died. Reigned 14 wks.—
17	S	1862	Canning died [Indus. and Prov. Societies Act, 1854]
18	S	1876	W. PARE, FIRST SEC. OF CONGRESS BOARD, died
19	M	1623	Pascal born
20	Tu	1837	Queen's Ascension
21	W	1884	Jos. SMITH, ASSISTANT SEC. CONGRESS BOARD, died
22	Th	1815	Napoleon abdicated
23	F	1757	Clive's Victory at Plassey
24	S		<i>Co-operative Wholesale Society Quarter Day</i>
25	S	1884	<i>Newcastle Drapery Warehouse opened</i>
26	M	1830	George IV. died
27	Tu	1857	Cawnpore taken
28	W	1838	Coronation Day
29	Th	1879	Victoria University chartered
30	F	1879	<i>Goole Forwarding Depôt opened</i>

July.

SUNRISE AND SUNSET.

1st Rises at.. 3 49 Sets at.. 8 18 | 15th Rises at .. 4 0 Sets at .. 8 10
 8th ,, .. 3 54 ,, .. 8 14 | 22nd ,, .. 4 11 ,, .. 8 1
 29th Rises at 4 21. Sets at 7 51.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises..10 24 aft. Sets 5 17 morn. | 15th Rises 6 0 morn. Sets 9 49 aft.
 8th ,, morn. ,, 2 35 aft. | 22nd ,, 3 3 aft. ,, 11 22 ,,
 29th Rises 8 49 aft. Sets 4 20 morn.

Last Quarter, 6th 10 5 aft. | First Quarter, 20th 5 3 aft.
 New Moon, 13th 0 47 ,, | Full Moon, 28th 8 10 ,,

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	S	1872	<i>Manchester Boot and Shoe Department commenced</i>
2	S	1867	EQUITABLE CO-OP. BUILDING SOCIETY ESTABLISHED
3	M	1881	DUNDEE BRANCH OF SCOTTISH C.W.S. OPENED
4	Tu	1776	Independence Day, U.S.A.
5	W	1849	Lord Gifford born
6	Th		Length of day, 16h. 24m.
7	F	1888	<i>Launch of s.s. "Equity"</i>
8	S	1797	Edmund Burke died
9	S		Sixth Sunday after Trinity
10	M	1509	John Calvin born
11	Tu	1450	Jack Cade killed
12	W	1869	<i>Limerick Branch opened</i>
13	Th	1872	Ballot Act in operation
14	F	1873	<i>Waterford Branch opened</i>
15	S		<i>St. Swithin's Day</i>
16	S	1876	<i>Manchester Furnishing Department opened</i>
17	M	1845	Earl Grey died
18	Tu	1881	Dean Stanley died
19	W	1870	Lucien P. Paradol died
20	Th	1873	Lord Westbury died
21	F	1887	<i>Manchester New Furnishing Warehouse opened—Pur-</i>
22	S	1807	Garibaldi born [<i>chase of s.s. "Marianne Briggs," 1883</i>]
23	S		Eighth Sunday after Trinity
24	M	1851	Window Tax repealed
25	Tu	1883	Captain Webb drowned
26	W	1869	Irish Church Bill passed
27	Th	1881	<i>Purchase of s.s. "Cambrian"</i>
28	F	1838	Queen Victoria crowned
29	S		<i>Nomination Lists: Last day for receiving</i>
30	S		Ninth Sunday after Trinity
31	M	1556	Ignatius de Loyola died

August.

SUNRISE AND SUNSET.

1st Rises at..	4 25	Sets at..	7 46	15th Rises at ..	4 47	Sets at ..	7 21
8th „ ..	4 36	„ ..	7 34	22nd „ ..	4 58	„ ..	7 6
29th Rises at 5 9.				Sets at 6 51.			

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises	9 30 aft.	Sets	8 18 morn.	15th Rises	9 3 morn.	Sets	8 47 aft.
8th „	morn. „	5 56 aft.		22nd „	5 16 aft.	„	11 43 „
29th Rises 7 49 aft.				Sets 7 23 morn.			

Last Quarter, 5th.....	4 23 morn.	First Quarter, 19th	9 52 morn.
New Moon, 11th	8 48 aft.	Full Moon, 27th	8 43 „

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	Tu		<i>Lammas Day</i>
2	W	1870	Battle of Sedan
3	Th	1732	Bank of England started
4	F	1873	<i>Cheshire Branch opened & Leicester Works purchased</i>
5	S	1876	<i>Leicester Works First Extension opened</i>
6	S		Tenth Sunday after Trinity
7	M		Bank and General Holiday
8	Tu	1827	George Canning died
9	W	1631	Dryden born
10	Th	1831	G. J. Goschen born
11	F	1863	<i>Co-operative Wholesale Society enrolled</i>
12	S		Grouse shooting begins
13	S		Eleventh Sunday after Trinity
14	M	1880	<i>Heckmondwike Boot and Shoe Works commenced</i>
15	Tu	1771	Sir Walter Scott born
16	W	1873	<i>C. W. S. Insurance Fund established</i>
17	Th	1786	Frederick the Great died
18	F	1870	Battle of Gravelotte
19	S	1885	Foundation Stone of new Eddystone Lighthouse laid
20	S		Twelfth Sunday after Trinity
21	M	1889	W. P. Hemm, director C. W. S., died
22	Tu	1800	Rev. Dr. Pusey born
23	W	1862	CORNER STONE, BLACKLEY STORE, LAID
24	Th	1572	Massacre of St. Bartholomew
25	F	1886	<i>Longton Crockery Depot opened</i>
26	S	1819	Prince Consort born
27	S		Thirteenth Sunday after Trinity
28	M	1859	Leigh Hunt died
29	Tu	1888	<i>Heckmondwike Currying Department commenced—</i>
30	W		[Voting Lists: Last day for receiving
31	Th	1688	John Bunyan died

September.

SUNRISE AND SUNSET.

1st Rises at.. 5 14 Sets at .. 6 45 15th Rises at.. 5 36 Sets at .. 6 13
 8th „ .. 5 25 „ .. 6 29 22nd „ .. 5 47 „ .. 5 57
 29th Rises at 5 59. Sets at 5 41.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises 8 34 aft. Sets 11 34 morn. 15th Rises 11 44 morn. Sets 7 47 aft.
 8th „ 2 32 morn. „ 6 15 aft. 22nd „ 6 17 aft. „ 0 57 morn.
 29th Rises 7 0 aft. Sets 10 47 morn.

Last Quarter, 3rd..... 9 42 morn. First Quarter, 18th 4 19 morn.
 New Moon, 10th 7 5 „ Full Moon, 25th 8 23 aft.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	F		Partridge Shooting commences
2	S	1871	“ CO-OP. NEWS ” FIRST ISSUED— <i>Newcastle and Lon-</i>
3	S		<i>[don Branch and Divisional Quarterly Meetings</i>
4	M	1870	French Republic declared
5	Tu	1800	Malta taken
6	W	1870	H.M.S. “ Captain ” foundered
7	Th	1533	Queen Elizabeth born
8	F	1868	SCOTTISH WHOLESALE COMMENCED BUSINESS
9	S	1891	William Green, director C. W. S., died— <i>General</i>
10	S		<i>[Quarterly Meeting</i>
11	M	1882	Capture of Tel-el-Kebir
12	Tu	1819	Blücher died
13	W	1884	LIFEBOAT “ CO-OPERATOR No. 1 ” presented to R. N. L. I.
14	Th	1852	Duke of Wellington died
15	F	1873	<i>Leicester Works commenced</i>
16	S	1830	First Railway opened
17	S	1863	PAISLEY MANUFACTURING SOCIETY STARTED
18	M	1854	Battle of Alma
19	Tu	1881	President Garfield died
20	W	1884	<i>21st Anniversary of C. W. S., Commemoration of</i>
21	Th	1832	Sir Walter Scott died
22	F	1854	Lord Denman died
23	S		<i>Co-operative Wholesale Society Quarter Day</i>
24	S		Seventeenth Sunday after Trinity
25	M	1870	Siege of Paris commenced
26	Tu	1857	Relief of Lucknow
27	W	1831	British Association formed
28	Th	1870	Strasbourg surrendered
29	F	1884	<i>Bristol Depot commenced—Michaelmas Day</i>
30	S	1758	Nelson born

October.

SUNRISE AND SUNSET.

1st Rises at .. 6 2 Sets at .. 5 36 | 15th Rises at.. 6 26 Sets at .. 5 5
 8th „ .. 6 14 „ .. 5 20 | 22nd „ .. 6 38 „ .. 4 51
 29th Rises at 6 50. Sets at 4 37.

RISING, SETTING, AND CHANGES OF THE MOON.

1st R ses.. 8 22 aft. Sets 1 39 aft. | 15th Rises 0 58 aft. Sets 7 22 aft.
 8th „ 4 21 morn. „ 5 0 „ | 22nd „ 4 2 „ „ 2 33 morn.
 29th Rises 7 17 aft. Sets 0 36 aft.

Last Quarter, 2nd..... 3 19 aft. | First Quarter, 17th..... 11 20 aft.
 New Moon, 9th 8 27 „ | Full Moon, 25th 7 28 morn.
 Last Quarter, 31st..... 10 42 aft.

Day of Month	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	S		Eighteenth Sunday after Trinity
2	M	1786	Admiral Keppel died
3	Tu	1883	Burnham Beeches made public
4	W	1819	F. Crispi born
5	Th	1874	<i>Durham Soap Works commenced</i>
6	F	1884	<i>Launch of s.s. "Progress"</i>
7	S	1891	Right Hon. W. H. Smith, M.P., died
8	S		Nineteenth Sunday after Trinity
9	M	1759	Eddystone Lighthouse finished
10	Tu	1885	"Hell Gate" dynamited
11	W	1492	America discovered by Columbus
12	Th	1886	<i>Launch of s.s. "Federation"</i>
13	F	1822	Canova died
14	S	1872	<i>C.W.S. Bank Department commenced</i>
15	S		Twentieth Sunday after Trinity
16	M	1834	Houses of Parliament burnt
17	Tu	1874	First Hospital Saturday
18	W	1826	Last English Lottery
19	Th	1745	Dean Swift died
20	F	1823	Thomas Hughes born
21	S	1805	Battle of Trafalgar
22	S	1890	<i>Northampton Saleroom opened—Cardiff</i>
23	M	1869	Earl of Derby died [Saleroom, 1891]
24	Tu	1852	D. Webster died
25	W	1415	Battle of Agincourt
26	Th	1859	"Royal Charter" lost
27	F	1728	Captain Cook born
28	S		<i>Nomination Lists : Last day for receiving</i>
29	S		Twenty-second Sunday after Trinity
30	M	1841	Great Fire at Tower of London
31	Tu	1882	<i>Leeds Saleroom opened</i>

November.

SUNRISE AND SUNSET.

1st Rises at .. 6 55 Sets at .. 4 31 | 15th Rises at.. 7 20 Sets at .. 4 9
 8th „ .. 7 8 „ .. 4 19 | 22nd „ .. 7 32 „ .. 4 0
 29th Rises at 7 43. Sets at 3 54.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises.. 11 26 aft. Sets 2 28 aft. | 15th Rises 1 25 aft. Sets 0 33 aft.
 8th „ 7 9 morn. „ 3 58 „ | 22nd „ 3 3 „ „ 5 42 morn.
 29th Rises 10 35 aft. Sets 0 52 aft.

New Moon, 8th 0 57 aft. | Full Moon, 23rd 6 8 aft.
 First Quarter, 16th 5 45 „ | Last Quarter, 30th 9 8 morn.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	W	1882	<i>Tea and Coffee Department, London, commenced</i>
2	Th	1887	<i>London Branch New Warehouse opened—Manufac. of</i>
3	F	1800	Battle of Hohenlinden [<i>Cocoa and Chocolate com.</i>
4	S	1891	<i>Wheat Sheaf Works, Leicester, opened</i>
5	S	1861	HALIFAX INDUSTRIAL SOCIETY INAUGURATED
6	M	1860	Admiral Sir Charles Napier died
7	Tu	1801	R. D. Owen, reformer, born
8	W	1886	<i>Trial trip s.s. "Federation"</i>
9	Th	1841	Prince of Wales born
10	F	1483	Martin Luther born [<i>Depôt new premises opened, 1880</i>
11	S	1887	Manchester Ship Canal, first sod cut— <i>Longton</i>
12	S		Twenty-fourth Sunday after Trinity
13	M	1851	Telegraph between England and France completed
14	Tu	1844	Abercrombie, metaphysician, died
15	W	1871	Stanley discovered Livingstone
16	Th	1891	<i>Aarhus Branch opened</i>
17	F	1858	Robert Owen died
18	S	1852	Duke of Wellington buried at St. Paul's
19	S		Twenty-fifth Sunday after Trinity
20	M	1869	Suez Canal opened
21	Tu	1835	The "Ettrick Shepherd" died
22	W	1804	Rochdale Canal opened
23	Th	1641	Irish Rebellion
24	F	1879	Sergeant Cox died
25	S	1889	T. A. Walker, contractor for Ship Canal, died
26	S	1871	<i>Opening of Newcastle-on-Tyne Branch</i>
27	M	1812	Lord Selborne born
28	Tu		<i>Voting Lists : Last day for receiving</i>
29	W	1889	Martin F. Tupper died
30	Th		<i>St. Andrew's Day</i>

December.

SUNRISE AND SUNSET.

1st Rises at .. 7 46 Sets at .. 3 52 | 15th Rises at.. 8 2 Sets at .. 3 49
8th „ .. 7 55 „ .. 3 49 | 22nd „ .. 8 7 „ .. 3 51
29th Rises at 8 8. Sets at 3 57.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises.. morn. Sets 1 18 aft. | 15th Rises 0 15 aft. Sets 11 7 aft.
8th „ 8 36 „ „ 3 18 „ | 22nd „ 2 37 „ „ 7 42 morn.
29th Rises morn. Sets 11 36 morn.

New Moon, 8th 7 40 morn. | Full Moon, 23rd 4 37 morn.
First Quarter, 16th..... 10 21 „ | Last Quarter, 29th..... 11 18 aft.

Day of Month.	Day of Week	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &C.
1	F	1844	Princess of Wales born [Quarterly Meetings
2	S		Newcastle and London Branch and Divisional
3	S		Advent Sunday
4	M	1795	Thomas Carlyle born
5	Tu	1870	Rome made Italian Capital
6	W	1882	Trollope, novelist, died
7	Th	1815	Marshal Ney shot
8	F	1863	Fire at Santiago
9	S		General Quarterly Meeting
10	S		Second Sunday in Advent
11	M	1869	Edward Hooson, director C.W.S., died
12	Tu	1757	Clibber died
13	W	1884	Attempt to blow up London Bridge
14	Th	1861	Prince Consort died
15	F	1891	Samuel Taylor, director C.W.S., died
16	S	1865	Commercial Treaty with Austria signed
17	S		Third Sunday in Advent
18	M	1862	Slavery abolished in the United States
19	Tu	1805	Lord Beaconsfield born
20	W	1848	Napoleon elected President
21	Th	1888	J. J. B. Beach, director C.W.S., died
22	F	1811	Archbishop Tait born
23	S		Co-operative Wholesale Society Quarter Day
24	S		Fourth Sunday in Advent
25	M		Christmas Day —OLDHAM INDUS. SOCY. COM., 1850
26	Tu		Boxing Day—Bank Holiday
27	W	1834	Charles Lamb died
28	Th	1802	Earl Grey born
29	F	1809	Right Hon. W. E. Gladstone born
30	S	1885	C.W.S. Fire, London Tea Department
31	S	1882	Gambetta, statesman, died

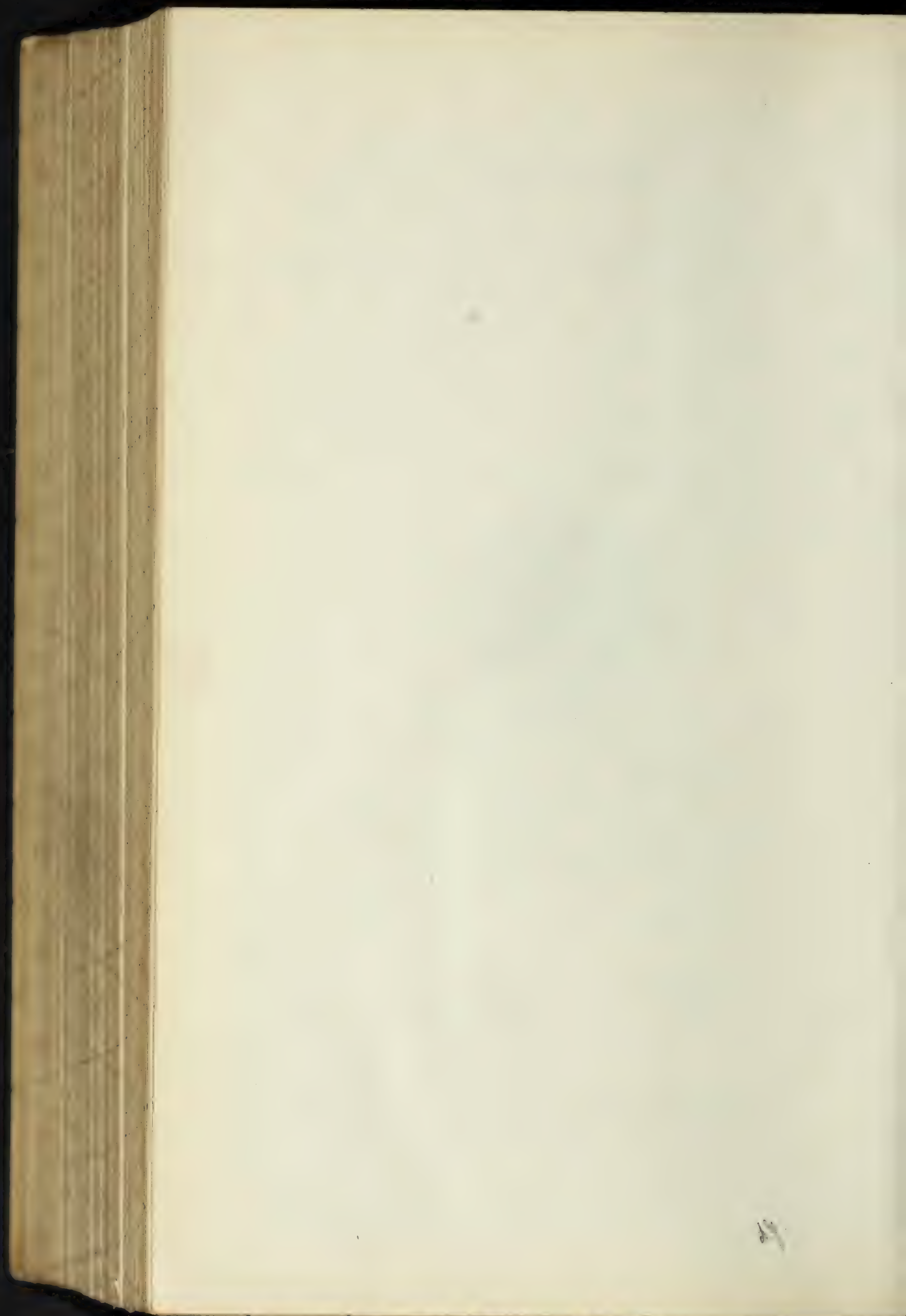
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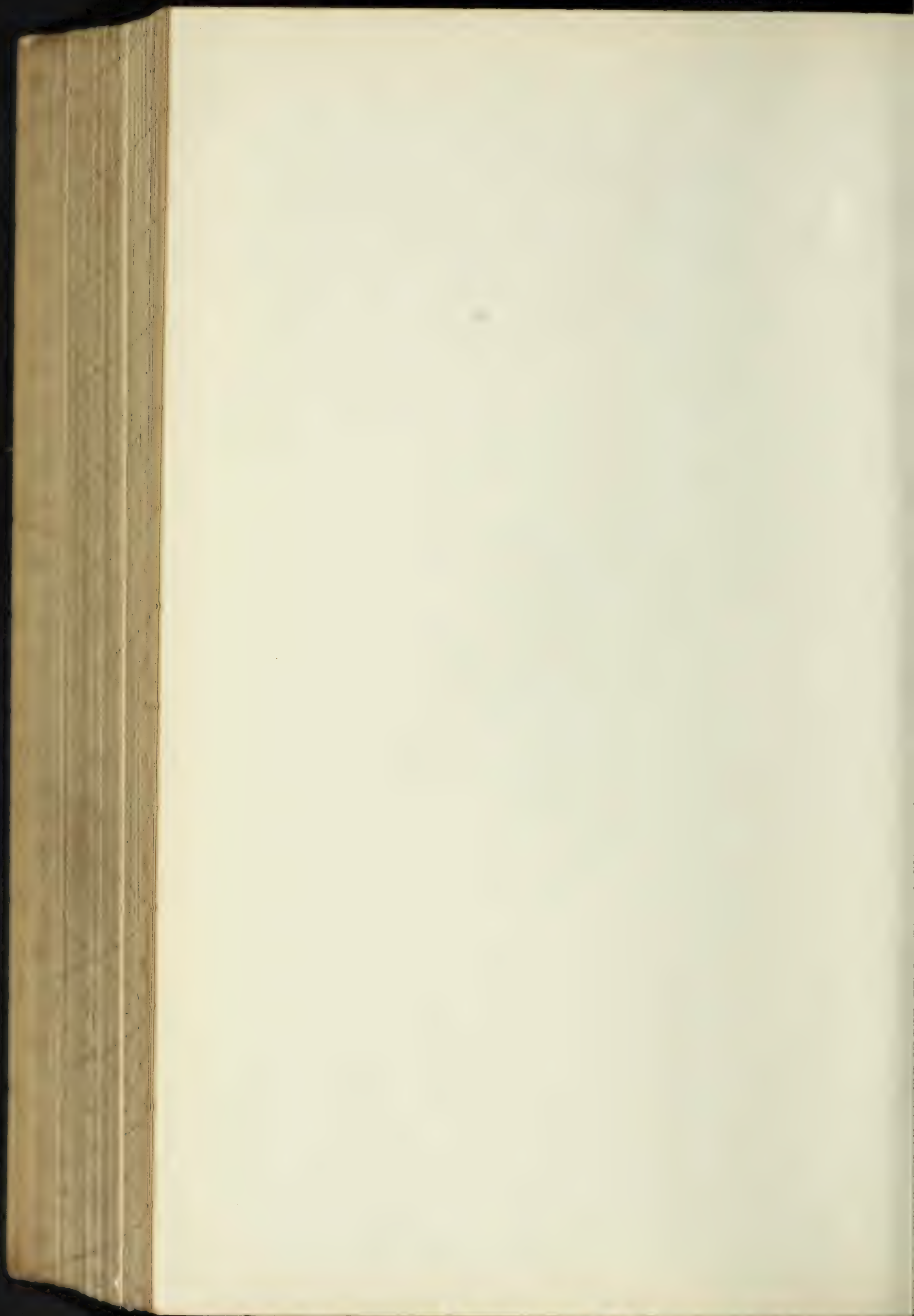


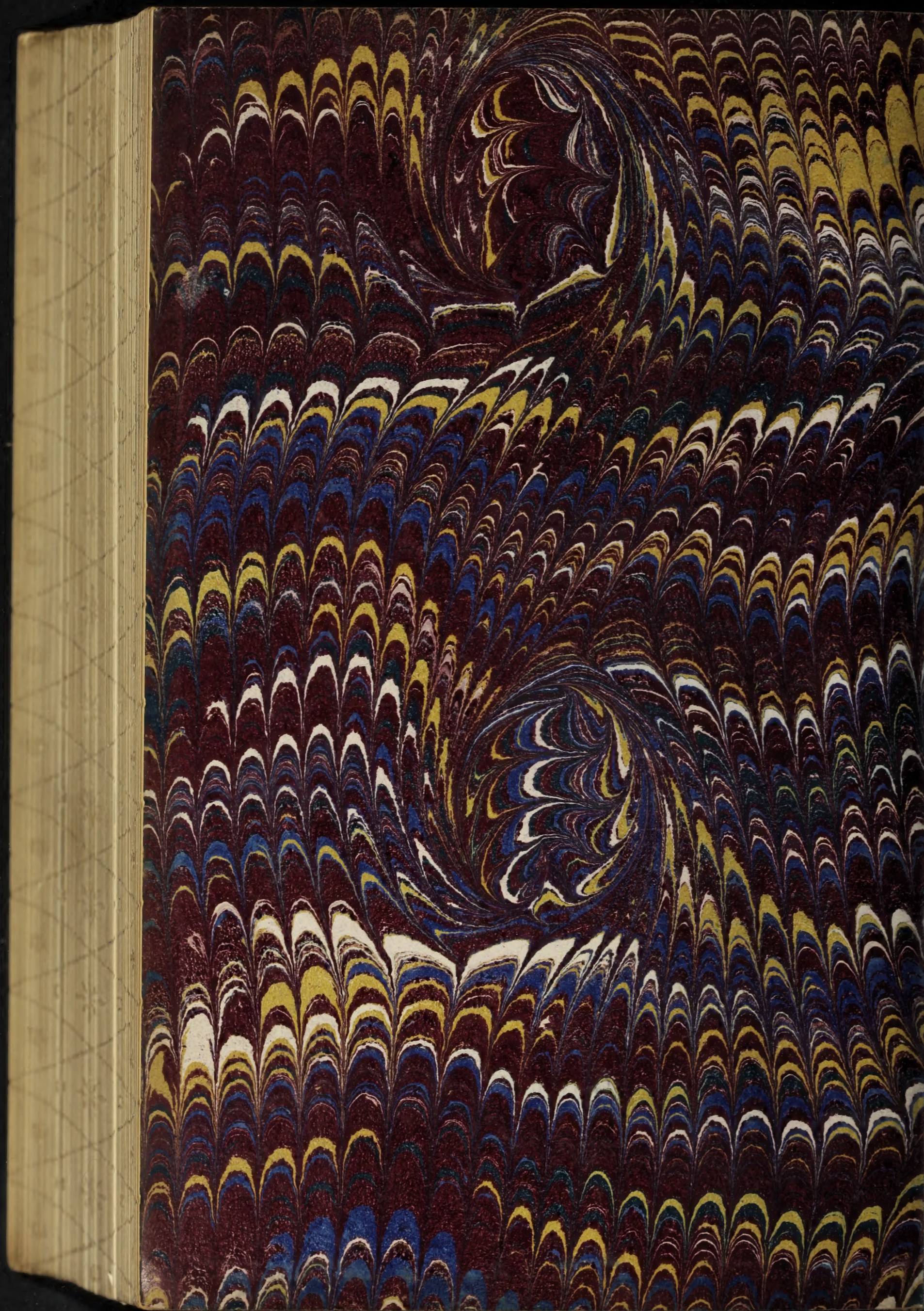
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LONDON WORKS:
6, SALISBURY COURT, FLEET STREET, E.C.









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